

iTunes 7 Tips + iPod Nano Review

# Macworld

[www.macworld.com](http://www.macworld.com) | December 2006



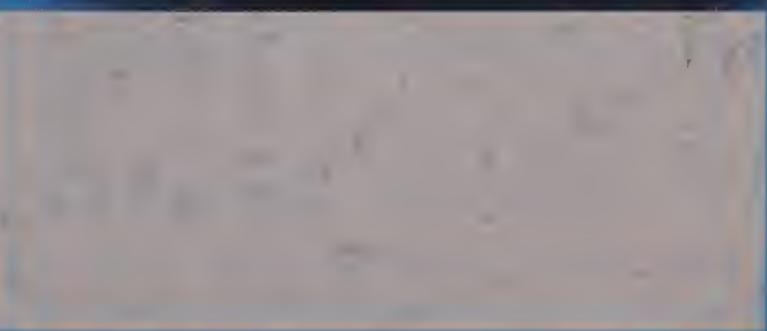
**52** Gadgets Every Mac User Will Love

**gear  
guide**



Plus: ↗

Mac Mini and 24-Inch iMac Reviews





MENU



MENU



MENU



MENU



MENU



MENU



# Movies. Now playing on an iPod near you.

Find new releases, classics, animation and more on iTunes. Download them in near-DVD quality with

Find your movie on iTunes. © 2005 Apple Computer, Inc. All rights reserved. iPod is a trademark of Apple Computer, Inc.



MENU



MENU



MENU



MENU



MENU



MENU



Just one click. Watch them on your computer or take them anywhere on your iPod.\* **iPod + iTunes**

\*With purchase of an iPod. © 2005 Apple Computer, Inc. All rights reserved. "iTunes" and "iPod" are registered trademarks of Apple Computer, Inc. All other trademarks are the property of their respective owners.

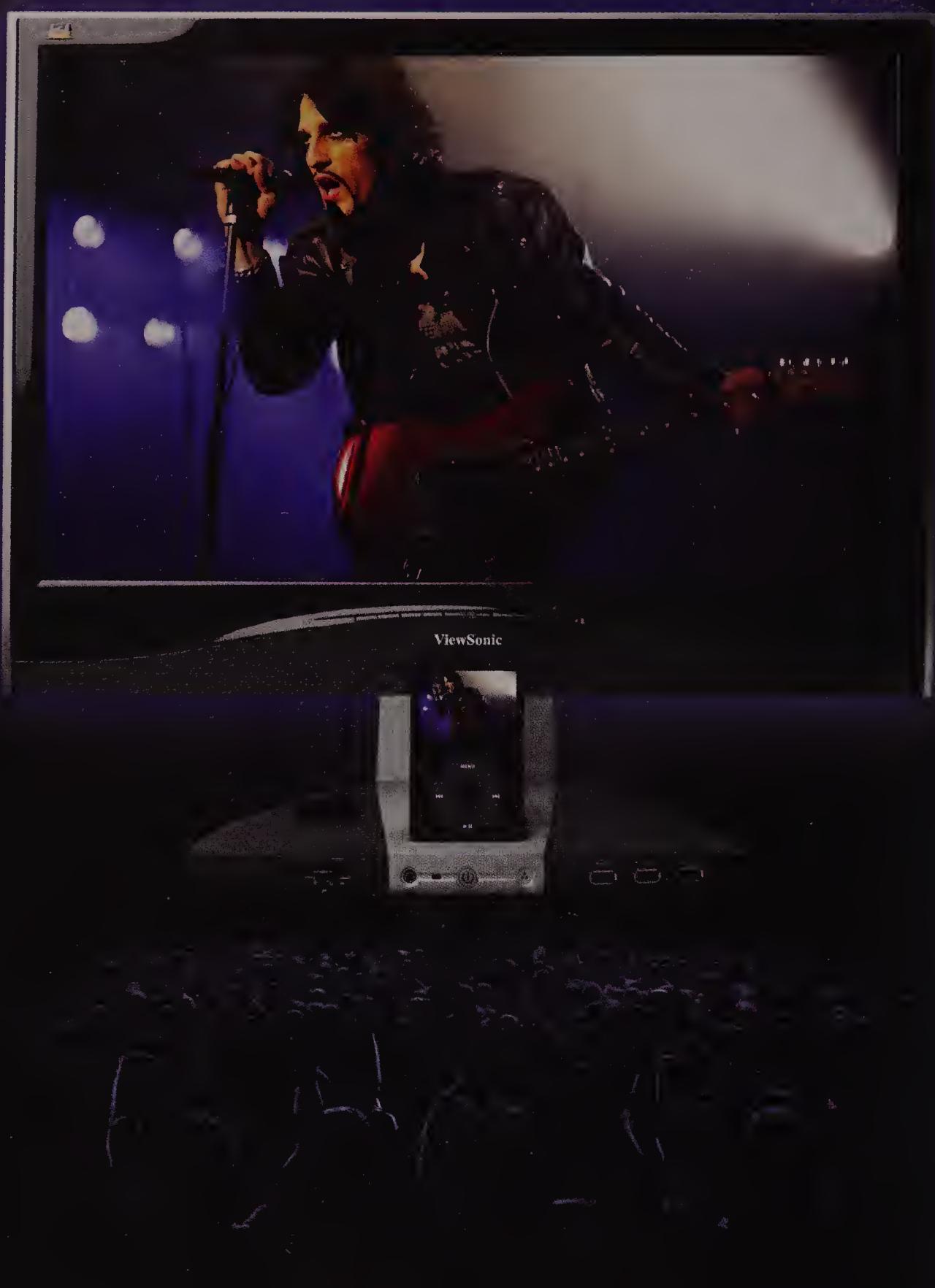


Now your ideas can look as good in your hand  
as they do in your head.



- Media Handling from 4"x6" up to 17"x22"
- Printing resolutions up to 2880 x 1440 dpi
- PostScript® Language Level 3™ compatibility
- Accurate Epson UltraChrome K3™ Inks
- SWOP® certified output
- PANTONE-licensed ColorBurst® RIP\*
- Built-in Ethernet for easy networking
- \$1,495 Professional Edition

The new Epson Stylus® Pro 3800. Your perfect design deserves a perfect print. The creative process can be exciting. It can also be frustrating. Because eventually, you have to find a way to get all those wild ideas out of your head and onto paper. Designed to meet your highest standards, the Epson Stylus Pro 3800 is loaded with features that will showcase your hard work and deliver the best possible image quality at a very affordable price. Imagine that. For more information, call 800.241.5373 and be sure to read the interview with designer Richard Borge at [www.epson.com/3800](http://www.epson.com/3800).



## ViewDock

Take your iPod® from  
hand-held to mind-blowing.

VX2245wm

THE WORLD'S FIRST INTEGRATED HD DISPLAY WITH IPOD DOCK.

Boost hand-held images to high-definition 22" widescreen. Get 4 direct-to-base USB slots, an 8-in-1 media card reader and iPod® charging station. Hear crisp audio with onboard stereo speakers and subwoofer. The ViewDock display is designed for clean, simple, desktop multimedia connectivity. Unite your digital devices into a single screen. Rock your personal digital universe. Find a retailer at [www.viewsonic.com/HDLife](http://www.viewsonic.com/HDLife).

**ViewSonic**  
*the choice of professionals*

Fry's

COMPUSEN



# Macworld

## COVER STORY

### 58 Macworld's Gear Guide

We spot 52 of the season's coolest new gadgets, apps, and tech wonders to fit any budget. Whether you're seeking a treat for yourself or someone else, for getting the job done or for just playing around, you're sure to find something to suit your needs.

## FEATURE

### 74 iTunes Remixed

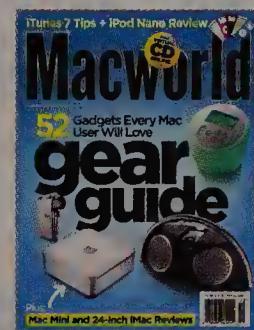
CHRISTOPHER BREEN, DAN FRAKES, AND ROB GRIFFITHS

iTunes 7 is a huge upgrade from iTunes 6, with new ways to view, play, and manage your music, videos, and—now—movies. Here's how to get the most out of all the new stuff. Plus: How good is it? We review iTunes 7.



**58 MACWORLD'S GEAR GUIDE**

**74 iTUNES REMIXED**



**On the Cover**  
Photograph by Peter Belanger

## OPINION

### 9 From the Editor's Desk

JASON SNELL

Looking back on five years with the iPod.

### 14 Feedback

Readers respond.

## REVIEWS

### 34 24-Inch iMac Core 2 Duo/2.16GHz

### 36 Core 2 Duo iMacs

17-Inch iMac Core 2 Duo/1.83GHz

17-Inch iMac Core 2 Duo/2GHz

20-Inch iMac Core 2 Duo/2.16GHz

### 38 Mac Minis

Mac mini Core Duo/1.66GHz

Mac mini Core Duo/1.83GHz



### 40 iPods

2G iPod nano (2GB, 4GB, and 8GB)

5G iPod (Late 2006) (30GB and 80GB)

### 46 More Reviews

### 48 Mac Gems

DAN FRAKES

Print better maps, add a sleep timer to iTunes, get better control over OS X's windows, make Safari remember open tabs, and quickly resize JPEG images.

### 55 Top Products

Special edition: Check out our year-end selection of the best hardware we've reviewed.





# First, fast and ready now.



## QuarkXPress® 7

New tools for amazing creativity  
and rock-solid productivity



QuarkXPress® 7 now runs natively on your Intel® based Mac® computer. New QuarkXPress 7 features include transparency, drop shadows, an improved interface, enhanced color management and PDF creation, and Job Jackets™ technology. This powerful upgrade expands creative options and delivers new tools for design, production, and collaboration for consistent, reliable output. QuarkXPress 7 is ready when you are on the platforms you use today.

*"With QuarkXPress 7, Quark is back on top and I'm really happy to see that."*  
– Suzanne McClellan, Art Director, Circuit City

©2006 Quark Inc. All rights reserved. Quark and QuarkXPress are trademarks of Quark Inc. and all applicable affiliated companies. Reg. U.S. Pat. & Tm. Off. and in many other countries. The Quark logo is a trademark of Quark Inc. and all applicable affiliated companies. Mac and the Mac logo are trademarks of Apple Computer, Inc., registered in the U.S. and other countries. All other marks are the properties of their respective owners.

Find a Quark® reseller near you:

North America: [www.quark.com/resellers](http://www.quark.com/resellers)

Europe: [euro.quark.com/resellers](http://euro.quark.com/resellers)





# iKaraoke

Karaoke for Your iPod

## iTalk Pro

CD-Quality Stereo Microphone for iPod



## iTrip auto

FM Transmitter and Car Charger for iPod



# GRIFFIN

iPod Accessories  
iPod Cases  
Mac/PC Accessories  
PSP Accessories  
buy now at [www.griffintechnology.com](http://www.griffintechnology.com)





# Five Years of the iPod

Since its debut five years ago, the iPod has become one of the most recognizable products in the world. It has transformed Apple's business and public image, and its halo effect has likely improved the Mac's image and fortunes as well. Whether or not you're a convert, it's hard to dispute the iPod's impact.

## Glimpse into History

I was in the Town Hall Auditorium at Apple's Cupertino, California, campus on October 23, 2001, when Steve Jobs introduced the iPod. (Go to YouTube, search for "Apple iPod Introduction," and watch the video; my coworkers and I are in one of the audience cutaways.) We had a pretty good idea we were going to see an Apple music player, but none of us knew we were witnessing the arrival of the first iconic product of the 21st century.

I still have my notes from that event on my Mac: overview of the "digital hub" concept; iDVD 2's ship date slipping a second time, to early November; demonstrations of iMovie, iTunes, and Mac OS X's Image Capture utility; and then, at last, the main event—a music product.

"It's a very large target market," Jobs said then. "It knows no boundaries. No one has really found the recipe yet for digital music. Not only can we find a recipe, but we think the Apple brand is going to be fantastic [for this]." His breathless and excited pronouncements are often derided. But on this particular October day in 2001, Jobs couldn't have been more right.

Holding one of those first-generation iPods today, I'm struck by just how much the iPod *hasn't* changed in five years. It's still a white block with a stainless steel back. Sure, details have evolved: the edges were sharp then, but are now smooth; the screen is now colorful and capable of displaying photos and videos; the scroll wheel doesn't physically move anymore. But that original iPod—with its 5GB hard drive, full-size FireWire port, and \$399 price tag—got a remarkable number of details right the very first time.

## Strange New Thing

At the end of the event, we all received prerelease versions of the iPod, already loaded with music. (To make the point that the iPod wasn't a vehicle for music piracy, Apple also gave us the source CDs for that music.) We were also given a beta version of iTunes that let you drag music from your iPod into iTunes—but Apple told us that the feature would be shut off in the final version. "Don't steal music" was suddenly one of Steve Jobs's favorite catchphrases.

What did *Macworld* think of the iPod back then? Most of us understood the product's niche immediately: two *Macworld* editors already had more than 5GB of MP3s on their Macs; I had a bit less, so I could fit my entire digital music collection onto that tiny iPod.

But we were hung up on the price. "At \$399, the iPod does not come cheaply," we wrote the next day. But the \$399 price tag didn't slow buyers down. The product was simply too good.

Are iPods still that good? To find out, see our reviews of the latest iPods (see page 42) and iPod nanos (see page 40), as well as our tip-laden look at the new iTunes update, iTunes 7, on page 74. And for more about that introduction five years ago, check out former *Macworld* columnist (and current *Newsweek* contributor) Steven Levy's most recent book, *The Perfect Thing: How the iPod Shuffles Commerce, Culture, and Coolness* (Simon & Schuster, 2006).

## Memories of 2001

I've spent a lot of my professional time covering the iPod and its offshoots in the years since it was introduced; however, it's also one of those products that has changed my life personally.

Five years ago, my wife and I were expecting our first child. When I came home with that sample iPod, I suggested to her that, rather than burning a CD of soothing music to play in the delivery room, she could build a playlist that we would load on the iPod. Over the next few weeks, she built a playlist called "Baby," which I synced to the iPod. I brought the iPod, a cassette adapter, and a boom box to the hospital, and we played her playlist during labor. My daughter—born three days before the iPod started shipping—was probably one of the first of thousands of kids who've since arrived in the world to the sound of the iPod.

So forgive me if I get a little sentimental when I talk about the iPod and its anniversary. Yes, it's a great product that has changed Apple's course. But I admit that I have an emotional attachment to it, too. It's become a part of my everyday life and personal history. So I say, "Happy Birthday." □

Where were you on October 23, 2001? How many iPods have you owned since then? Come over to [macworld.com/forums](http://macworld.com/forums) and let me know.

# Wireless? In-ear? High definition? Noise-isolating?



YES  
DEFINITELY



ety8.com

ETYMOLOGIC RESEARCH

# Macworld

VP, Editorial Director Jason Snell  
Executive Editor, Print Dan Miller  
Executive Editor, Online Philip Michaels  
Managing Editor, Print Sue Voelkel  
Managing Editor, Online Curt Poff  
Art Director Rob Schultz  
Macworld.com News Director Jim Dalrymple  
Senior Editor, Features Kelly Turner  
Senior Editor, How-to Scholle Sawyer McFarland  
Senior Editor, News Jonathan Seff  
Senior Editor, Reviews Jackie Dove  
Lab Director James Galbraith  
Senior Editors Christopher Breen,  
Peter Cohen,  
Dan Frakes,  
Rob Griffiths  
Associate Editor, Reviews Eric Suesz  
Copy Editor Cassandra Earls  
Designer Carli Morgenstern

Editor at Large Rick LePage

Senior Contributors Adam C. Engst,  
Jim Heid,  
Ted Landau

Contributing Editor Cathy Lu

Contributing Lab Analyst Jerry Jung

Contributing Copy Editors Gail Nelson-Bonebrake,  
Charles Purdy

Production Consultant Jennifer Werner

Contributing Photographer Peter Belanger

## HOW TO CONTACT MACWORLD SUBSCRIPTION SERVICES

Access your subscription account online—24 hours a day, 7 days a week—at [www.macworld.com/customer\\_service](http://www.macworld.com/customer_service) or <http://service.macworld.com>. You can use online subscription services to view your account status, change your address, pay your bill, renew your subscription, report a missing or damaged issue, get the answers to frequently asked questions, and much more.

To start subscribing, visit <http://subscribe.macworld.com>.

**U.S. Mail** Macworld Subscriptions Department  
P.O. Box 37781, Boone, IA 50037-0781  
(If you are writing about an existing account,  
please include your name and address as they  
appear on your mailing label.)

**E-mail** [subhelp@macworld.com](mailto:subhelp@macworld.com)  
(Send your full name and the address at  
which you subscribe; do not send  
attachments.)

**Fax** 515/432-6994

**Phone** 800/288-6848 from the United States and  
Canada; 515/243-3273 from all other locations

The one-year (12-issue) subscription rate is \$34.97; the two-year rate, \$59.97; and the three-year rate, \$79.97. Foreign orders must be prepaid in U.S. funds; add \$10 per year for postage to Canada or \$25 per year for air freight to all other countries. Checks must be made payable in U.S. currency to *Macworld*. Please allow 3 to 6 weeks to receive your first issue or for changes to be made to an existing subscription.

## MACWORLD EDITORIAL

The editors of *Macworld* welcome your tips, compliments, or complaints. Some stories and reviews from past issues can be located at [www.macworld.com](http://www.macworld.com). We are unfortunately unable to look up stories from past issues; recommend products; or diagnose your Mac problems by phone, e-mail, or fax. You can contact Apple toll-free, at 800/538-9696, or visit the company's Web site, at [www.apple.com](http://www.apple.com). For editorial and advertising contact information, please turn the page.

December 2006, Volume 23, Issue 12

*Macworld* is a publication of Mac Publishing, L.L.C., and International Data Group, Inc. *Macworld* is an independent journal not affiliated with Apple Computer, Inc. Copyright © 2006, Mac Publishing, L.L.C. All rights reserved. *Macworld*, the *Macworld* logo, *Macworld Lab*, the mouse-ratings logo, *MacCentral.com*, *PriceGrabber*, and *Mac Developer Journal* are registered trademarks of International Data Group, Inc., and used under license by Mac Publishing, L.L.C. *Apple*, the Apple logo, *Mac*, and *Macintosh* are registered trademarks of Apple Computer, Inc. Printed in the United States of America.



# Experience The Difference

## NuPower™



**newertech NuPower™**

High Capacity replacement batteries  
for all Apple® PowerBook® and iBook® Models  
starting at \$99.95



"...completely delighted  
with the performance of the  
Newer Technology  
replacement battery."

- MacOpinion.com

- Advanced Li-Ion Polymer cell technology
- Unrivaled quality and performance
- Unmatched longest run times
- Free battery recycling return label
- 1 Year NewerTech warranty
- Manufactured in the USA



All NewerTech NuPower batteries incorporate  
Thermal Fuse Technology to protect you and your laptop.



To purchase NewerTech products, visit distributor:

at [www.MacSales.com](http://www.MacSales.com) or (800) 275-4576

For a complete list of distributors, visit: [www.NewerTech.com](http://www.NewerTech.com)

**Macworld**  
Conference & Expo  
January 8-12, 2007  
The Moscone Center  
San Francisco, CA

Visit NewerTech at Booth #S1338-23

# Small Dog Electronics

*Always by your side.*



## Thousands of Mac-friendly gifts at great prices!

**Olympus 750 7.1 MP Camera**



Free 512 MB Memory Card! **\$399!**

**Love My MacBook Bundle**



**\$49!**  
Clean & protect your MacBook!

**Free premium leather case with any new iPod video or nano!**



**Starting at \$199**

**Belkin TuneBase iPod FM Transmitter & Charger**



**\$64**

**New & refurbished Apple computers, starting at \$599 - free shipping!**



Enter coupon code "macworld"

**SDE iHome - available in black or white!**



**\$89!**



# SmallDog.com

Apple computers, software, iPods, iPod accessories, digital home entertainment gear, and peripherals for Macs & PCs!

**800-511-MACS (6257)**



**Apple Specialist**

# Macworld

President, CEO	Jeff Edman
VP/Publisher, Macworld.com	Michael Carroll (508/370-0842)
Associate Publisher, Macworld/ Magazine Sales, East Coast	Paul Zampitella (781/944-0528)
Magazine Sales Manager, West Coast/TX	Leslie Piper (415/243-3509)
Online Sales Manager, East	Paul Bonarrigo (508/370-0844)
Online Sales Manager, West	Jason Thach (760/736-9228)
Account Manager, Showcase	Niki Stranz (415/243-3664)
Ad Operations Specialist	Kenji Kawakami (415/243-3628)
Ad Operations Coordinator	Jessica Hemerly (415/243-3575)
Senior Director, Marketing	Sandy Wong (415/978-3181)
Marketing Specialist	Michelle Kloss (415/978-3380)
Executive Asst. to the President	Roxanne Warrick (415/978-3298)

Production Director	Steve Spingola
Prepress Manager	Tamara Gargus
Booking and Billing Manager	Ricardo Sandoval

CTO	Aaron Jones
IT Manager	Jacob Clingerman
Development Director	Bill Cappel

General Manager, Online	Ulla McGee
Director, Business and Legal Affairs	Sue Krenek
Director, Online Marketing	Alexa Wriggins

Senior Manager, Business Development	Brian Buizer
Online Marketing Specialist	Ben Veechai
Member Service Specialist	Brian Witchel
Online Community Manager	Kellie Parker

VP, Human Resources	Kate Coldwell
Human Resources Representative	Jenny Steele

Director, Consumer Marketing	David Cobb
Newsstand Director	Holly Drawbaugh
Director, Retention Marketing	Lisa Radler

Senior Manager, Retention Marketing	Robyn Patty
Retention Marketing Coordinator	Shavon Burden
Senior Subscription Marketing Manager	Linda Trinh
Subscription Marketing Manager	Jennifer Ma

CFO	Vicki Peilen
Director, Finance	Diane Ryczek-Rae
Director, Accounting	Michelle Reyes
Staff Accountant	Lee Ann Baldwin
Accounting Coordinator	Andrew Lyon-Hall

### HOW TO CONTACT MACWORLD STAFF

Our offices are located at 501 Second Street, 5th Floor, San Francisco, CA 94107; phone, 415/243-0505; fax, 415/243-3545. Macworld staff can be reached by e-mail at [firstname.lastname@macworld.com](mailto:firstname_lastname@macworld.com).

### LETTERS TO THE EDITOR

Send comments about any aspect of Macworld to [letters@macworld.com](mailto:letters@macworld.com). Due to the high volume of mail we receive, we can't respond to each letter. We reserve the right to edit all submissions. Letters published in Macworld or on Macworld.com become the property of Mac Publishing.

### BACK ISSUES OF MACWORLD

Starting with the March 2003 Macworld, back issues can be downloaded in digital format, from [www.zinio.com](http://www.zinio.com) (\$6.99; Mac OS X 10.1 or later required). Print-format back issues (subject to availability) cost \$8 per issue for U.S. delivery, \$12 for international delivery; prepayment in U.S. currency to Macworld is required. Send a check or money order to Macworld Back Issues, P.O. Box 37781, Boone, IA 50037-0781; or phone 800/288-6848 (U.S. and Canada) or 515/243-3273 (all other locations).

### REPRINTS AND PERMISSIONS

You must have permission before reproducing any material from Macworld. Write to Macworld, Reprints and Permissions, 501 Second Street, 5th Floor, San Francisco, CA 94107; include a phone number. To order reprints of your company's editorial coverage, call Reprint Management Services at 717/399-1900; fax 717/399-8900; or e-mail [macworld@reprintbuyer.com](mailto:macworld@reprintbuyer.com).

### MAILING LISTS

We periodically make lists of our customers available to mailers of goods and services that may interest you. If you do not wish to receive such mailings, please write to us at Macworld, P.O. Box 37781, Boone, IA 50037-0781, or e-mail us at [subhelp@macworld.com](mailto:subhelp@macworld.com). Please include a copy of your mailing label or your full name and address.

### MACWORLD CONFERENCE & EXPO

As the flagship sponsor of Macworld Conference & Expo, Macworld encourages all subscribers to attend this exciting annual industry event. For information, please visit [www.macworldexpo.com](http://www.macworldexpo.com).



**ZEON**™

**iLUV**™



Made for  
iPod



iPod with video  
(30GB, 60GB and 80GB)

# Making Spirits Bright



## i1055 \_ 7" Portable Multimedia Tablet-Style DVD Player for Your iPod

Nothing will make you feel joyful and triumphant like watching your favorite videos and iPod downloads on the iLuv i1055 this Holiday Season. Simply place your iPod in the dock at the rear of the unit, rejoice and be merry. You can now play your favorite videos and songs from your iPod, as well as your DVDs on the i1055's 7" widescreen active-matrix TFT LCD screen. But wait, there are even more glad tidings. Enhance your enjoyment of your iPod with FREE powerful stereo headphones and other accessories.



on the go



in the car



at home



Free Deluxe Gift

Carrying case  
Stereo headphones



■ PORTABLE STEREO AUDIO SYSTEM  
i552 v1.1

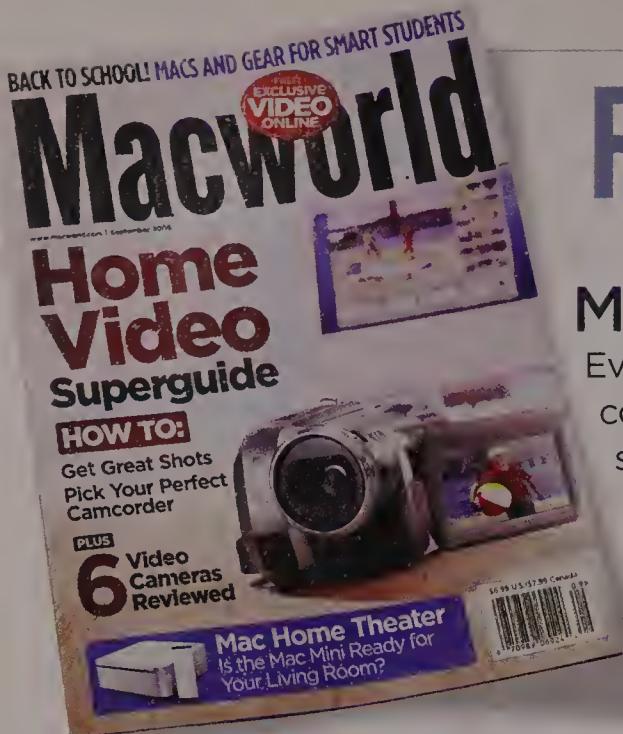


■ AUDIO SYSTEM WITH DUAL ALARM  
i177 v1.1



\* The i1055 is available wherever iLuv products are sold, including fine retailers like Best Buy, J&R Music World, Circuit City, Staples, Fortunoff and EXPO.





# FEEDBACK

## Mac TV

Every month, we get letters from readers complaining about excessive coverage of iPods and digital cameras, and arguing that *Macworld* should stick to covering Macs. But strangely, we didn't get any such complaints about our September issue, which was all about digital video. Maybe you were in the market for a new video camera or were suddenly curious about editing video on the Mac. Whatever the reason, we didn't get any guff—just more questions. Come on, folks, can't someone out there suggest we change our name to *Digital Video World*? Please? □

## Straight to Video

GLENN KOENING

Your latest review of video camcorders (*Reviews*, September 2006) is good to see, but I think you neglect one important feature: sound. The review barely mentions audio features. Which models have microphone jacks? Can you attach any brand of microphone or just that camcorder's brand? What about headphone jacks? If you're just recording shots of the kids frolicking at the beach, you may not care about the answers. But if you're working on more-involved projects, you will.

KENNETH WATSON

In "Digital Video Essentials" (September 2006), you write that Macs don't support burning HD DVDs. But DVD Studio Pro 4 has a preset for burning DVD-Rs in HD DVD format, and it works just fine. You do have to limit yourself to 30 minutes of video per disc, and you must use the MPEG-2 encoder. You can find out more in the DVD Studio Pro discussion forum on Apple's Web site.

*You're correct. DVD Studio Pro 4 does let you burn high definition content in MPEG-2 format to a standard DVD-R disc—but the result isn't a true HD DVD. Many people have reported problems with audio and menus, as well as the limitations you mention. And you need an HD DVD player, which costs around \$500, to play the discs.—Jonathan Seff*

JIM REED

Having recently purchased a Core Duo Mac mini, I read and enjoyed Christopher Breen's article "The Multimedia Mac Mini" (September 2006). However, I'd add a couple of other points about the mini. First, storage: The mini's small drive

can hold only a limited amount of media. That's why I added an external 400GB SATA hard drive, connected to the mini via USB, to handle my movies and music. I don't have to worry about streaming from my main Mac, and the drive doubles as a backup device. Second, the remote control: The Apple Remote is limited to line of sight, and Front Row won't let you access your ripped DVD movies. The Salling Clicker (●●●●; [macworld.com/1721](http://macworld.com/1721)) minimizes both shortcomings. With a little work, it can interface with Apple's DVD Player and play movies I ripped from my own discs, using the open-source HandBrake. Now if I could only find an HD LCD TV to replace my aging set. Thanks, Christopher, for another great article.

## Wireless Wandering

DAVID D. EDGINGTON

Regarding "Get Online from Anywhere" (*Mobile Mac*, September 2006): I have been using the Kyocera KPC650 EV-DO card with Verizon service for several months now, and it works like a charm. I shuttle between three different offices, so the flexibility of having one always-on broadband connection has been really important. Overall, Verizon's EV-DO service is an excellent package that works well on the Mac. I hope we see more like it soon.

## Wish List

CONRAD FLYNN

In "10 Wishes for Leopard" (*Mac Beat*, September 2006), Christopher Breen writes that he wishes Apple would implement a system-restore feature in OS X, similar to the one in Windows XP. As a veteran Windows user turned Mac user, I'd

like to be the first to discourage this. System Restore in Windows is a quick temporary fix at best. OS X users, don't be jealous.

MICHAEL MYERS

Your list of features you wanted to see in Leopard missed a major one for those of us in the design field: WYSIWYG font menus. This feature was so helpful in Mac OS 9, but it disappeared in OS X. Now it seems to be available only for AppleWorks. We need to have it available for *all* programs.

ROBERT SHELTON

After reading and rereading "10 Wishes for Leopard," I have come to the following conclusions: one, if Apple implements your ten suggestions, I'd like to have a single preference pane where I can disable all ten of them; two, if these "improvements" are the best you can come up with, Apple has already created the perfect operating system; and three, there is no real need for Leopard, just a service release to fix the bugs in Tiger.

## The Truth about Treos

CHAD DE HAAN

In your review of the Treo 700p ([macworld.com/1510](http://macworld.com/1510)), you say that it can be used as an EV-DO modem with a Mac

## CORRECTIONS

In our September story "The Multimedia Mac Mini," we mistakenly reported that DisplayConfigX was free. It actually costs \$12.

In "Get Smart" (September 2006), we didn't correctly attribute two of the reviews of iPod cases. Dan Moren wrote the review of the DLO Nano Fling, and Derik DeLong reviewed the iSkin eVo3.

only if you connect via Bluetooth, and that the Treo's USB connection works only with Windows. But I've been able to connect my PowerBook G4 and my Intel Mac mini to my Treo via USB, using a utility called USB Modem, and it works great.

*While it's true the Treo can connect to a Mac via USB if you use a third-party utility like USB Modem, it can't do so out of the box. That's why we dinged it.—Jackie Dove*

## Backup Caution

FIEDOTIN ARNOLDO



In "Back Up Photos on the Road" (*Digital Photo*, November 2006), you recommend considering a backup service. I would offer a word of caution. Over the years, I have subscribed to three such services. All three have gone out of business. My data was not compromised, but I'm now wary of them.

## Better iTunes Printing

DAN GENITON



The picture accompanying your story about printing jewel-case inserts from

iTunes ("Printing from iTunes," *Playlist*, September 2006) perfectly illustrates one of the biggest complaints about the program. As far as I can tell, you can't edit the song or artist information you're printing on those inserts. As a result (and as the picture showed), that information often comes out truncated. My solution: Software MacKiev's \$60 The Print Shop for Mac, which prints iTunes playlists and allows fine control over all the information you want to display.

## Multiple Masters: Who Cares?

ALAN SANDERS



I'm puzzled by Bill Troop's enthusiasm for FontLab Studio's support of Multiple Master fonts ([macworld.com/1512](http://macworld.com/1512)), because OS X essentially doesn't support such fonts. One can use the canned instances that come with a Multiple Master font, but there is no way to create new instances—which is what Multiple Master fonts are all about—without ATM Deluxe, and ATM Deluxe runs only in OS 9. Unless I've missed something, you can't

manipulate Multiple Master fonts on Intel-powered Macs, which do not support Classic mode.

*There are actually several ways to create new Multiple Master instances on an Intel Mac (without Classic mode or ATM). You can create custom Multiple Master instances with the \$649 FontLab Studio or \$349 Fontographer 4.7 ([www.fontlab.com](http://www.fontlab.com)). You can also use FontLab's TransType 3 font-conversion utility (SE, \$87; Pro, \$179). Using TransType to produce new instances is only slightly more cumbersome than using ATM to do the same thing in OS 9.—Bill Troop*

Post comments on our forums ([www.macworld.com](http://www.macworld.com)); send them by mail to Letters, *Macworld*, 501 Second Street, 5th Floor, San Francisco, CA 94107; or send them by e-mail to [letters@macworld.com](mailto:letters@macworld.com). Include a return address and daytime phone number. Due to the high volume of mail we receive, we can't respond personally to each letter. We reserve the right to edit all letters and posts. All published letters and forum comments become the property of *Macworld*.



## Wacom Graphire4

**WACOM**

Have fun with your digital photos!

- Quickly and easily edit your digital photos with pressure-sensitive pen control
- Draw, paint, and create fun artwork for art projects
- Comfortably jot notes, annotate documents, and communicate more personally
- Patented cordless, battery-free pen and mouse
- Includes Adobe® Photoshop® Elements 3 and more

Visit: [www.TabletPhotoFun.com](http://www.TabletPhotoFun.com) Call: 1.800.922.2589

**graphire<sup>4</sup>**

Have fun with your digital photos  
From \$99



**Intuos®**  
For the serious photographer,  
designer, and artist  
Intuos starts at \$229

**Cintiq®**  
Work directly on screen  
Cintiq 21UX - \$2499



# Eliminate paper. Liberate your



Adobe Acrobat

cool.

photo: razor-la.com



## Fujitsu ScanSnap™. It's a snap.

Why push paper when you can push a button? Free yourself with the ScanSnap scanner, the most powerful solution in its class for turning paper into electronic documents. Since the Fujitsu ScanSnap comes preloaded with Adobe® Acrobat® 7.0 Standard (a \$299 value), one touch of a button is all it takes to turn double-sided documents into searchable PDFs, ideal for storing, protecting and sharing documents. And you'll be doing it fast. Native support for the new Intel® chipset delivers a blazing 18 pages per minute scan speed. All this and it's small enough to fit where your inbox used to be. Plus, for a limited time, get free I.R.I.S. card scanning and OCR software through mail-in rebate or downloadable redemption form. So get rid of paper and get back your cool with the Fujitsu ScanSnap. It's a snap!

How will you ScanSnap? Visit us at

<http://us.fujitsu.com/scanners/96C9>

and answer our survey for a chance to win an iTunes® gift card.



# FUJITSU

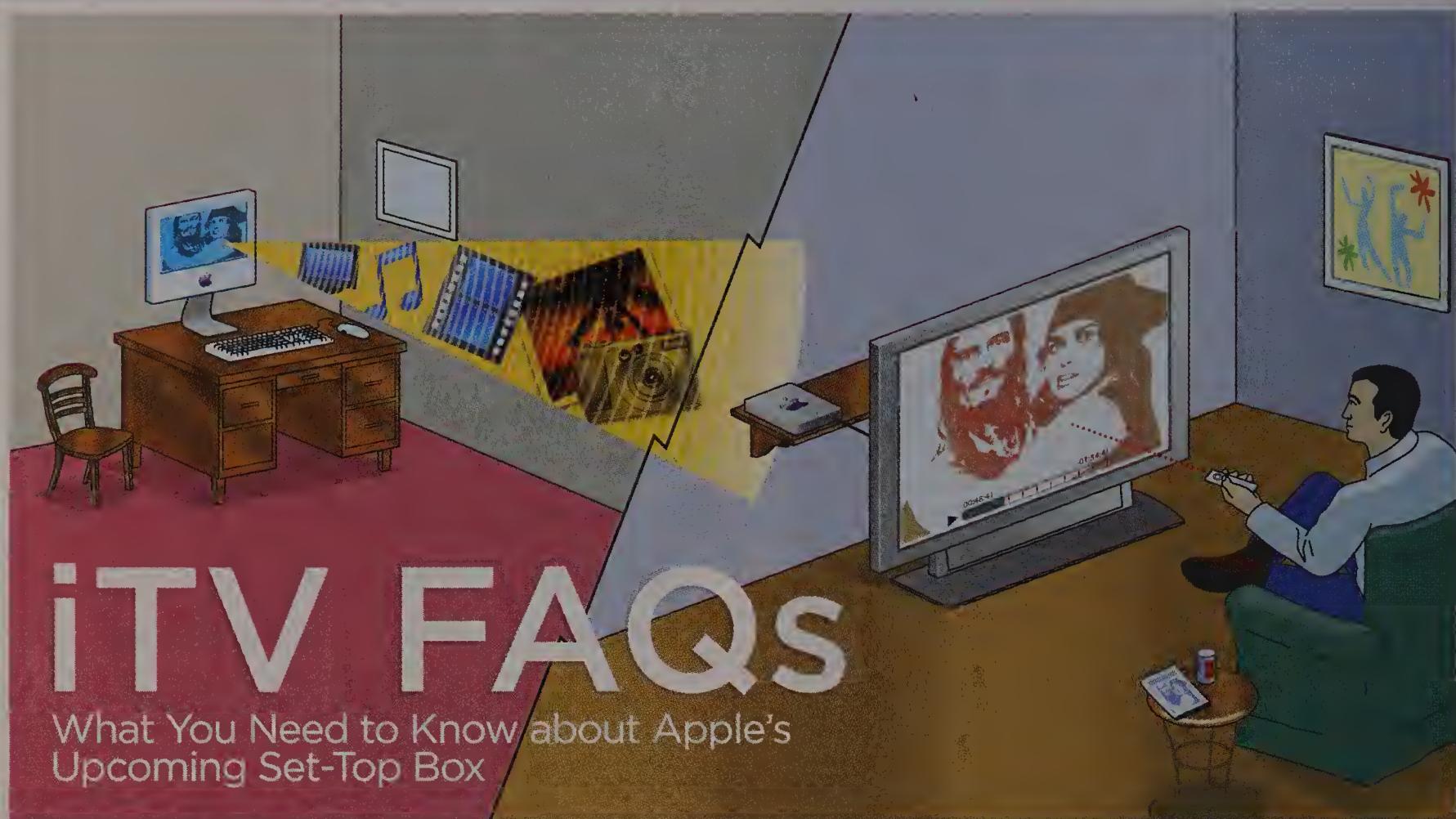
THE POSSIBILITIES ARE INFINITE

© 2006 Fujitsu Computer Products of America, Inc. All rights reserved. Fujitsu and the Fujitsu logo are registered trademarks of Fujitsu Ltd. iTunes is a trademark of Apple Computer, Inc., registered in the U.S. and other countries. Adobe and Acrobat are registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries. Cardiris, Readiris and the I.R.I.S. logo are I.R.I.S. trademarks. All other trademarks are the property of their respective owners.

CDW

Insight

MacMall



## iTV FAQS

What You Need to Know about Apple's Upcoming Set-Top Box

BY DAN FRAKES AND JASON SNELL

Apple rarely gives us a preview of a piece of hardware many months before it's set to arrive. But the transformation of the iTunes Store to include full-length motion pictures wouldn't have had as much impact if Apple hadn't also announced a way to watch those movies on your TV set.

That's where the iTV, Apple's small new set-top box, comes in. Although we don't expect to get our hands on one for several months, we answer the most common questions about the iTV, as well as state some hard facts—and plenty of educated guesses—about what will surely be one of our favorite new products of 2007.

### What does the iTV do, and what would I use it for?

Right now, when it comes to enjoying digital media in your living room—especially if you purchase that content through the iTunes Store—your options are pretty limited. You can connect a fifth-generation

iPod to your TV set and play the videos straight off that iPod, or you can attach a Mac mini to a digital TV and use Apple's Front Row software, but neither method is ideal. Enter the iTV, which connects to your television and stereo and provides the remote-control-driven interface of Front Row without the keyboard-and-mouse issues of a full-fledged computer. The iTV connects to your home network and displays, right on your TV, a menu of options geared toward letting you play back digital content—stored on a computer in your house or on the Internet—while you're sitting in your living room. That content includes movies, TV shows, and music downloaded from the iTunes Store; other audio and video content you've loaded into iTunes; movie trailers from Apple's Web site; and perhaps more stuff Apple hasn't talked about yet.

### What's with the name? Isn't there already an iTV?

There are more than one, actually.

There's Elgato's EyeTV hardware and its software by the same name. There's iTV, the British TV network. The Apple Store even sells the Monster iTV Link, a set of cables that connect iPods to TV sets. Also, Steve Jobs said that *iTV* is an internal code name. So we don't think that it's the device's final moniker.

### So is the iTV a glorified AirPort Express for video or a hardware version of Front Row?

Actually, it's a little bit of both. Like the AirPort Express, the iTV lets you stream media wirelessly from iTunes (running on a Mac or a Windows PC) to a home entertainment system, and it includes Ethernet and USB ports. But the iTV has more intelligence than the AirPort Express, which plays only what a remote Mac tells it to. In addition to playing back audio, the iTV displays video and provides an Apple Remote-controlled, on-screen menu system that looks very much like the Front Row multimedia management software.

## **When can I buy one, and what will it cost?**

Unlike most Apple products, which tend to ship soon after they're announced, this product isn't scheduled to arrive until the first three months of 2007, which means that it could show up in early January at Macworld Expo San Francisco, on the day before April Fools' Day, or anywhere in between. The one thing Apple made clear is that the iTV will cost \$299.

## **What does it look like?**

If you were to take a Mac mini and chop it in half horizontally, the resulting top section—minus the optical-drive slot—would look a lot like the iTV. Fans of home theater equipment may find this design annoying, since it doesn't match the footprint of most stereo components.

## **Will the iTV be limited to playing back only videos I buy through the iTunes Store?**

Probably not. Our prediction is that, at the very least, the iTV will play back MPEG-4 and H.264 videos that you add to the iTunes library of a Mac or PC on your home network. It's possible, but not as likely, that iTV will handle other video formats, such as DivX or even the MPEG-2 format used on DVDs. At the very least, you should be able to convert DVDs and other video files, using a tool such as the open-source HandBrake or Techspansion's \$23 VisualHub, add the resulting files to iTunes, and get the iTV to detect them and play them back.

## **What can't the iTV do?**

It doesn't seem to be able to record television broadcasts, as a TiVo does—although, you could connect a recording device, such as one of Elgato's EyeTV products, to your Mac and have it add the resulting recordings to iTunes, where they'd be available for playback. The iTV doesn't have a built-in optical drive, so it can't play DVDs (though according to Disney president and CEO Bob Iger, it will include a small built-in hard drive). It's also not a Mac, so you shouldn't expect to be able to surf the Web on it.

Apple's demonstration of the iTV also suggested that you won't be able to buy

videos or music directly from its interface. That would be an interesting (and convenient) direction for the product, but it's unlikely to appear at first.

## **What ports does it have?**

The back of the iTV—at least the prototype version Apple showed off—provides ports for power (the power supply is internal, so there's no bulky brick), Ethernet, HDMI (a single connector that outputs digital audio and video, common on many HD televisions), component video (video divided into three components, a connection common on many recent televisions),



analog stereo audio (left and right RCA connectors), Toslink digital audio, and USB 2.0.

## **Will I be able to connect a drive or an iPod to the iTV's USB port?**

The reason for the included USB port is one of the iTV's great mysteries. It may serve the same purpose as the USB port on the current AirPort Express—for printer sharing, remote control, or iPod charging—or it may be for connecting your iPod and gaining instant access to all the movies, TV shows, podcasts, and music stored on it. But perhaps you'll be able to add or expand storage with a USB hard drive, or update the iTV to the latest in high-speed wireless networking with a USB adapter.

## **Speaking of wireless, what kind of wireless technology will the iTV use?**

Steve Jobs made a point of saying that the iTV will let you stream content wirelessly from your computer to your TV. What he didn't say, however, was which wireless technology it will include—he just called it 802.11. There's little chance that it'll be 802.11b—the slow, original AirPort

standard. He could mean the current 802.11g standard found in Apple's AirPort Extreme hardware, which can stream the standard definition video files that today's iTunes Store offers. But the iTV probably won't be able to keep up with the high-definition—or even higher-resolution—content that may be coming from Apple in the future. We suspect that Apple will use a draft version of the as-yet-unratified 802.11n, which should offer ten times the bandwidth of 802.11g (540 Mbps versus 54 Mbps) and a longer range. By some reports, Apple has already started using 802.11n chips in the latest iMacs.

## **What kinds of TVs and stereos will I be able to connect it to?**

You should be able to connect the iTV to any TV with an HDMI port (or an HDMI-compliant DVI port) or component-video inputs. And the iTV should connect to just about every stereo, since it has both the common analog audio-output jacks and an industry-standard Toslink digital optical output.

The big issue with the iTV is going to be whether your TV has enough inputs to handle all the shiny new devices you're buying for it. Many digital TVs offer only a single HDMI or DVI connector and a single set of component inputs. Let's say you've got a DVD player, a high definition DVR or receiver, and an iTV. That's three devices with high-quality outputs—but if your TV has only two such inputs, you can't use all those products at once.

## **My TV doesn't have an HDMI port or component-video connectors. Am I out of luck?**

You're not out of luck, but you're not in a great position, either. Apple definitely intends the iTV to be a device for the digital TV era. You can find hardware to convert component video to S-Video, but we're not confident that a device like this will be an acceptable solution in terms of price, picture quality, and other features. If you really want an iTV, you might want to take a close look at your current TV—maybe it's time for a new model. □

DAN FRAKES is the senior reviews editor at Playlistmag.com. JASON SNELL is *Macworld's* editorial director.

SOME DEVELOPERS FACED CHALLENGES, OTHERS WERE SHUT OUT

# Making iPod Games

The latest full-size iPods and a software update to the previous fifth-generation iPods brought with them several improvements, one of which was the ability to play a new breed of sophisticated iPod games. The game developers tasked with creating the first full-fledged games for the iPod faced two challenges: developing for a new platform and dealing with Apple's desire to keep every detail closely under wraps. But these challenges proved impossible to resist, given the popularity of Apple's handheld music player.

"We think iPod gaming is a big opportunity," says Dave Roberts, CEO of PopCap Games, whose Bejeweled and Zuma are among the nine iPod games available for \$4.99 each at the iTunes Store.

According to Roberts, PopCap had been working with Apple for more than a year to bring its games to the Mac in a project that, in typical Apple fashion, demanded absolute secrecy.

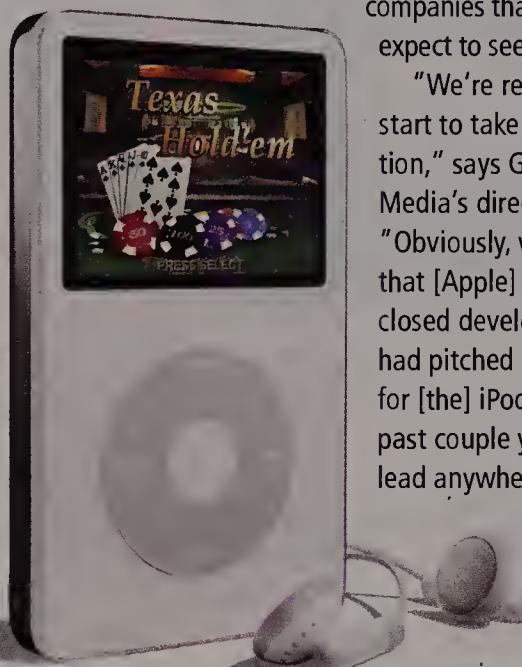
"We coordinated with Apple engineering," he says, "and the first time I was able to play the game on the iPod was at the [September 12] Apple event."

Steve Smith, president of Fresh Games, maker of the cube-based puzzle game Cubis 2, relays a similar story.

"There were certain limitations on what we were allowed to have or see," says Smith, referring to the development tools needed to complete the game. He says that Fresh Games originally approached Apple about iPod game development and Apple eventually contacted Fresh Games to follow up on the proposal.

But reaching an agreement with Apple was merely the first obstacle to overcome in developing games for the iPod. The second was adapting games to work on the iPod. As Dennis Ryan, PopCap's executive vice president of business development explains, "It was different in terms of using the Click Wheel as an input device rather than a dial pad. In terms of technical challenges, it's things we've dealt with before, like a small screen size and different memory requirements. It's a different platform, but it's what we do."

Namco Networks' priority was on making sure that an iPod version of the arcade classic Pac-Man played as close to the original as possible, says Scott Rubin, vice president of sales and marketing for the game maker. And Namco's work on Pac-



Man offers a prime example of how each developer used different approaches to getting the iPod's Click Wheel to work as a gaming input device. Some games depend on the Click Wheel's rotating function, but Pac-Man uses it as a virtual joystick of sorts—quick taps on the Click Wheel's cardinal points make the Pac-Man character move in that direction.

At the same time, not every game maker was happy about the iPod's new feature—especially those who were snubbed by Apple. Of the nine games to debut on the iTunes Store, all but two were developed by software makers outside of Apple. However none of those games came from

companies that Mac gamers usually expect to see on Apple hardware.

"We're really glad to see Apple start to take the iPod in this direction," says Glenda Adams, Aspyr Media's director of development. "Obviously, we're disappointed that [Apple] launched it as a closed development system. We had pitched several game ideas for [the] iPod at Apple over the past couple years, but it didn't lead anywhere."

Other developers were less diplomatic. "It was lame of Apple to

ignore the guys that have been loyal to them," says a developer who asked not to be named. "We were ready, willing, and able to create anything they wanted."

That sentiment was echoed by several other developers who noted that they've approached Apple about iPod games ever since the company released the iPod photo, the first color-screen iPod. Reps from those companies say that they were either rebuffed or ignored by Apple. For that reason, many were caught off guard by the new gaming feature.

"I understand Apple's desire to keep things organized and to maintain control over the iPod, but as a game developer who specializes in original content, I'm disappointed that I don't have access to the iPod, because I know I could come up with some games that would blow away the stuff that's available now," says Pangea Software President Brian Greenstone. "Original content would be more of a selling point than just selling games that are available on 100 other platforms already." —PETER COHEN

## NEWS IN BRIEF

### Adobe Releases New Lightroom Beta

Adobe introduced the fourth beta version of its pro software for processing digital photos. With this release, the company has also renamed the app Photoshop Lightroom. New to this release are precision white-balance selection options; a new streamlined user interface with customizable controls; new tone-curve adjustment features; new filters, search presets, and organizing options; and support for additional cameras. Photoshop Lightroom is expected to ship in early 2007.



**Adobe**

### Apple Offers Red iPod Nano

Teaming up with U2 lead singer Bono, Apple released the iPod nano (Product) Red Special Edition in October. The red iPod is available in a 4GB model for \$199, and Apple will contribute \$10 from each sale to The Global Fund to Fight AIDS, Tuberculosis, and Malaria. The donated funds will be used to buy and distribute medication to help fight HIV and AIDS in Africa.

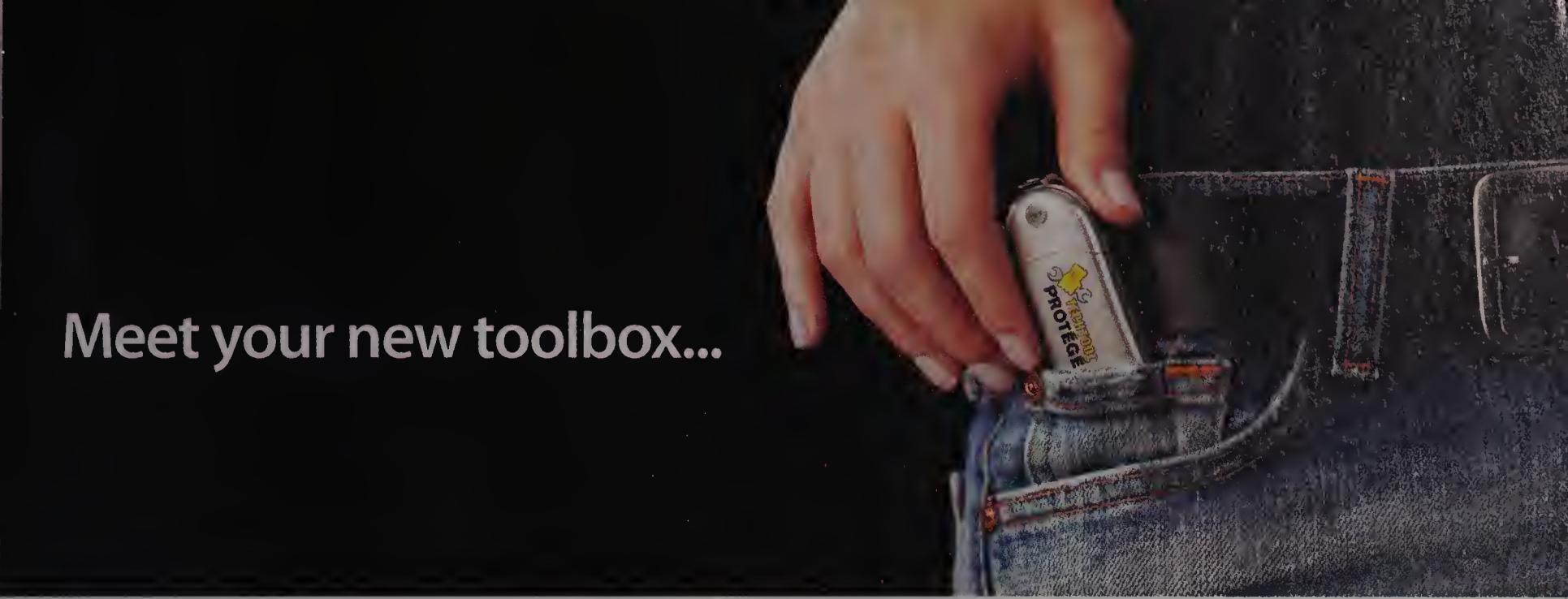


"We're ecstatic that Apple is giving their customers the choice to buy a red iPod nano," said Bono, a cofounder of (Red), "and help women and children affected by HIV/AIDS in Africa." For more on (Red), go to [www.joinred.com](http://www.joinred.com).

### Parallels Update Fixes RAM Problem

Parallels has released an update for Parallels Desktop, a virtualization program that lets Intel-based Mac users run Windows alongside OS X without having to reboot (as Apple's own Boot Camp software requires). The update to the \$80 Parallels Desktop corrects an issue that prevented previous builds from running on Xeon-based Mac Pro systems and Intel Core 2 Duo-equipped Macs with more than 2GB of RAM. This new version supports up to 16GB of RAM, improves USB support, and allows you to install Windows Vista as a guest OS.





## Meet your new toolbox...



Actual Size

Introducing TechTool Protege™, the pocket-sized toolbox for the Macintosh professional. This tiny flash drive boots directly into Mac OS X. It includes the full-featured diagnostics and repair utility TechTool Pro, as well as the disk partitioning program DiskStudio™. All that, and there's still room left over for some of your other utilities as well. Unlike a CD, TechTool Protege is a read/write device. This means it can be updated as new versions of Mac OS and the utility programs are released. In addition, computers will boot faster and programs will run faster from Protege than from a CD.

As a Macintosh professional, it's your job to bring dead computers back to life. The next time you need to work on a Macintosh, all you need to do is connect TechTool Protege, quickly boot the computer from it, and get right to work. No fumbling around with CDs, portable drives, installers or the myriad of other items you'd usually need to keep in your toolbox. TechTool Protege... the ultimate Macintosh toolbox.

With TechTool Protege you can do the following:

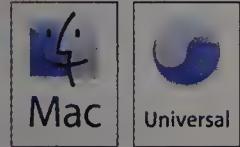
DIAGNOSE MACINTOSH HARDWARE

DIAGNOSE AND REPAIR HARD DRIVE PROBLEMS

OPTIMIZE AND DEFRAGMENT HARD DRIVE VOLUMES

REBUILD VOLUME DIRECTORIES

RECOVER DATA FROM DAMAGED VOLUMES



# Protégé



MICROMAT  
INCORPORATED

800-829-6227 • 707-566-3831 • [www.micromat.com](http://www.micromat.com)

©2006 Micromat, Inc. All rights reserved. TechTool is a registered trademark of Micromat, Inc. TechTool Protege and DiskStudio are trademarks of Micromat, Inc.

APPLE UNVEILS UPDATE TO DIGITAL PHOTOGRAPHY SOFTWARE

# Aperture 1.5 Released

Digital photographers were in for a treat when Apple recently announced a free update to its \$299 Aperture software—a postproduction tool designed for professional photographers—during a special event at the Photokina trade show in Cologne, Germany.

"Any notion that Apple is not 100 percent committed to [the pro photographer] space has been completely erased," says Rob Schoeben, Apple's vice president of applications product marketing.

One big feature in Aperture 1.5 ([macworld.com/2266](http://macworld.com/2266)) is a new open library system that lets photographers store images on internal disks, external drives, and CDs and DVDs. The system also lets users rate, review, and organize images—even if they are offline—based on high-resolution previews.

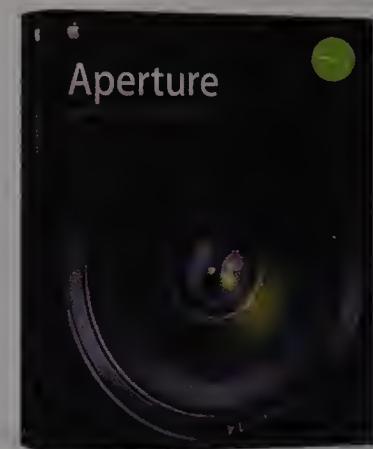
Aperture also now provides integrated support for iLife '06 and iWork '06, so

users can access Aperture media to build Web sites, create presentations in Keynote, and copy JPEG versions of the Aperture images to iPhoto.

Aperture 1.5 also has a luminance-based Edge Sharpen filter for extremely high-quality sharpening results, and a Color tool that lets photographers tune the hue, saturation, and luminance of specific color ranges within each image.

Schoeben says that the Loupe magnifier has been dramatically enhanced with a set of on-screen controls, smooth zooming with up to 1,600 percent magnification, and a new option that lets you detach it from the cursor while making adjustments. Users can now save individual adjustment settings as menu commands, which allows them to quickly make preset adjustments.

Apple has also developed a new API plug-in architecture to let third-party developers tap into Aperture. Connected



Flow, DigitalFusion, Flickr, Getty Images, iStockphoto, PhotoShelter, Pictage, and Soundslides each demonstrated their plug-ins for Aperture during the Photokina trade show.

Though Aperture is known for its high system requirements, Apple says that Aperture 1.5 runs on any currently available Mac, including the Mac mini. However, working with Raw-format images really requires a very fast Mac and a powerful graphics card.

In addition, Apple has included support for the Fuji S2 and S3 cameras, as well as the Sony A100.—JIM DALRYMPLE

## Does your Mac do TV?



It will, with EyeTV!

**eyetv**  
watch record edit enjoy



**Watch**, pause and rewind full screen television directly on your Mac. **Record** TV shows and take control of your schedule with the help of a built-in, searchable Program Guide. **Edit** recordings to remove unwanted content, or create short video clips. **Export** your recordings to your iPod® in one easy step. Sit back, and **enjoy**.

Elgato products are available at these and other authorized Apple dealers: [Apple Store](#) [MacMall](#)



NEW!

\$149.95

eyetv hybrid  
Analog/Digital TV Receiver

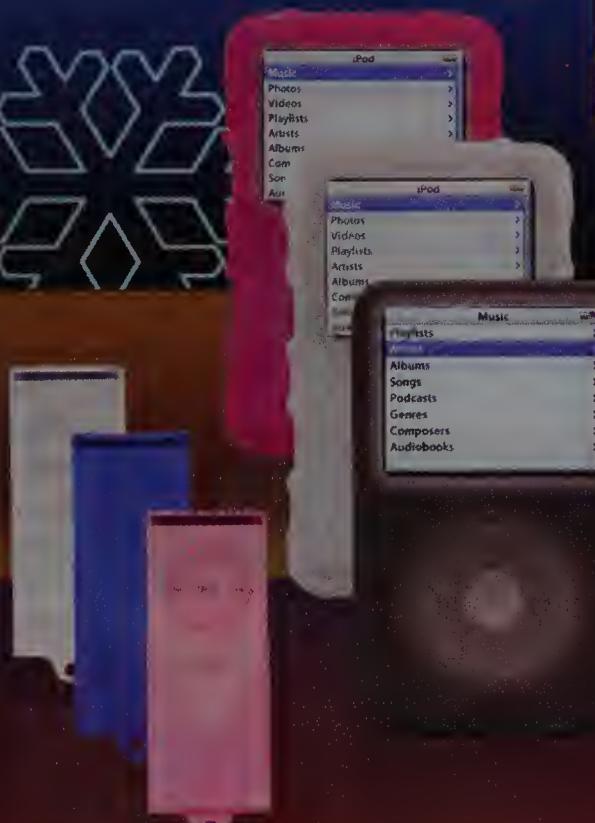
For more information on our products visit [www.elgato.com](http://www.elgato.com)

**elgato**

# **zCOVER®**

fashionable protection cases

for iPod 30/60/80GB **NEW**



for Apple Remote

for iPod nano 2nd Generation **NEW**

Rotary  
Belt Clip

Armband

## Dress it, Express yourself.

A Leading Producer of Silicone Protectors

Trend-setting Fashionable Cases, Excellent Protection & Fit

Functionality with Elegance, Extraordinary Durability, Technology with Inspiration

**Macworld  
AWARDS 2006**

Nomination



apple desktop keyboard protector



zCover products are available at [www.zcover.com](http://www.zcover.com)

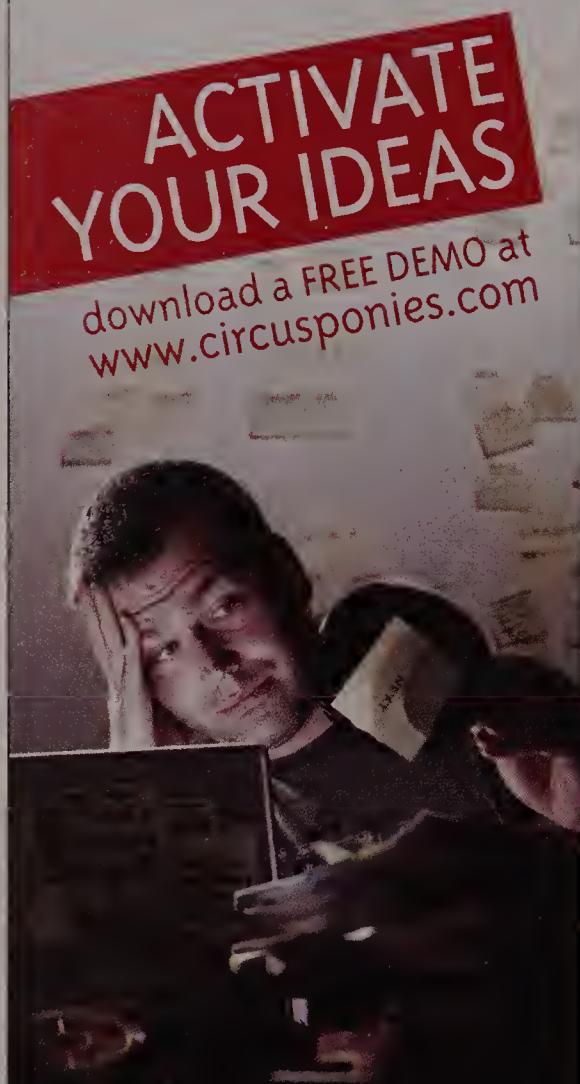
**www.zCover.com**

"NoteBook is a must-have if you're using your computer as a true digital hub."

Tera Patricks, Mac360.com

"NoteBook is now open on my desktop all the time."

Shawn King, Host/Exec. Producer, Your Mac Life



## CIRCUS PONIES NOTEBOOK

organization for a creative mind



NoteBook is available at:  
CompUSA and the Apple Store



## DVR AND STREAMING SOFTWARE PAIR RIVAL EYETV, iTV

# SageTV Coming to the Mac

Using TV-tuning hardware to record and then watch shows on your Mac is a neat trick. Sending those programs over to your TV so you can enjoy them in the living room is even neater. But software maker SageTV has a bigger idea in mind. The company is bringing two of its currently Linux- and Windows-only products to the Mac; used together, they will let you record programs and watch them on any Internet-connected computer.

"We've received a lot of interest from Macintosh users asking us to bring SageTV to the Mac," says SageTV CEO Mike Machado, referring to the company's flagship package, SageTV Media Center. "More homes have mixed environments these days, and people want to be able to watch TV on a big screen regardless of their operating system."

When used with compatible hardware (none of which has yet been announced for the Mac), SageTV will give users EyeTV-like abilities to pause and rewind

live TV, record shows to disk, set up season passes for favorite shows, and do keyword searches via the integrated programming guide. SageTV will also let you listen to music stored on your hard drive, view pictures, get weather reports for your area, and set parental controls for content.

The other piece of the puzzle is PlaceShifter, a program that will let users on

any platform access SageTV content over the Internet from any location. In contrast, Sling Media's Slingbox and Sony's LocationFree send programs from your TV or DVR instead of your



computer. PlaceShifter even lets you schedule recordings, adjust settings, and watch live TV remotely—basically, PlaceShifter lets you do anything that you can normally do with the SageTV interface on your Mac at home.

Pricing for the Mac products will be the same as for the Windows and Linux versions: SageTV Media Center, \$80; PlaceShifter, \$30.—JIM DALRYMPLE



## INTERNET BEAT

**eCart 3.7**, from WebAssist ([www.webassist.com](http://www.webassist.com)): Shopping-cart software for Adobe's Dreamweaver Web design tool adds support for Website Payments Pro, from PayPal (\$250; upgrade from version 3.X, free).

**Messenger for Mac 6.0**, from Microsoft ([www.microsoft.com/mac](http://www.microsoft.com/mac)): This chat client now runs natively on Intel-based Macs and allows Messenger users to chat with Yahoo buddies (free).

**RapidWeaver 3.5**, from Realmac Software ([www.realmacsoftware.com](http://www.realmacsoftware.com)): Theme-based visual Web site editor adds native support for Intel-based Macs, as well as enhancements to blogging tools (\$40; upgrade, free).



## CREATIVE BEAT

**Lineform 1.2.1**, from Freeverse Software ([www.freeverse.com](http://www.freeverse.com)): Drawing and illustration tool features a streamlined user interface and adds new Core Image-based filters (\$80).

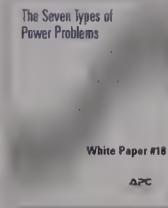
**PDF2Office Personal 3.0**, from Recosoft ([www.recosoft.com](http://www.recosoft.com)): Plug-in for converting PDF documents to Microsoft Word format now runs natively on Intel-based Macs and has the ability to convert static PDF forms into editable Word documents (\$59; upgrade from version 2, \$29).

**Print-Limit Pro 6.2**, from GenevaLogic ([www.genevalogic.com](http://www.genevalogic.com)): Print-management software aimed at educational institutions adds support for Mac OS X Server (pricing starts at \$995).

## FREE Informational Brochure!

Learn how to safeguard your equipment from  
the most common power problems.

White Paper #18 "The Seven Types of Power Problems"



**Key Code**

<http://www.apc.com/promo> p872x  
(888) 289-APCC x6940 • FAX: (401) 788-2797

Yes! Please send me my FREE white papers.  No, I'm not interested at this time, but please add me to your mailing list.

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Company: \_\_\_\_\_

Address 1: \_\_\_\_\_

City/Town: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_ Country: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

Yes! Send me more information via e-mail and sign me up for APC PowerNews® e-mail newsletter.

**What type of availability solution do you need?**  UPS: 0-16kVA (Single-phase)  UPS: 10-80kVA (3-phase AC)

UPS: 80+ kVA (3-phase AC)  DC Power  Networking Enclosures and Racks  Air Conditioning

Monitoring and Management  Cables/Wires  Line Conditioning  Mobile Protection  Surge Protection

UPS Upgrade  Don't Know

**Purchase timeframe?**  <1 Month  1-3 Months  3-12 Months  1 Yr Plus  Don't Know

**You are (check 1)**  Home/Home Office  Business (<1000 employees)  Large Corp. (>1000 employees)

Gov't, Education, Public Org.  APC Sellers and Partners





NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES

# BUSINESS REPLY MAIL

FIRST-CLASS MAIL

PERMIT # 36

WEST KINGSTON RI

POSTAGE WILL BE PAID BY ADDRESSEE

ATTENTION CRC: p872x  
132 FAIRGROUNDS RD  
PO BOX 278  
WEST KINGSTON RI 02892-9920



# I'm an APC. I protect Macs.



APC Smart-UPS® 1000 provides power protection and battery back up during power outages.

## Learn why 30 million people protect their music, photos and financial files with APC.

**"Overall the reliability of electrical systems in the US almost certainly will decline over the next 10 years."**

- Venture Development

Think of all that you rely on your computer for: personal and business files, financial information, broadband access, videos, photos, music, and more.

Increasingly, computers are the hub for managing our lives. And more people rely on APC to protect their hardware and data than any other Uninterruptible Power Supply (UPS) brand.

Why is APC the world's best selling power protection? For 20 years, we have pioneered power protection technology. Our Legendary Reliability® enables you to save your data, protect your hardware, and prevent downtime. It also guards against a power grid that is growing less reliable every day.

According to the Department of Energy, electricity consumption will increase by



40% over the next 10 years. Yet today, investment in utilities is at an all-time low. It's a "perfect storm" for computer users, one that makes APC protection even more essential.

APC has a complete line of power protection solutions to suit a range of applications. Already an APC user? Get the latest Replacement Battery Cartridge for your unit or upgrade to a newer model.



Find out why 30 million people don't need to worry about losing their music, photos, and financial files.

### APC Solutions for Every Level of Protection

#### Home Starting at \$59.99

Best value battery backup and surge protection for home computers.  
8 outlets, DSL protection, 44 minutes of runtime

Back-UPS® ES 550R



#### Home Office Starting at \$99.99

Complete protection for home and small business computers.  
10 outlets, DSL and Coax protection, 70 minutes of runtime

Back-UPS® ES 750



#### Small Business Starting at \$459.00

High-performance network power protection with best-in-class manageability for servers.

Smart-UPS® 1000



### Buy now - Special Offers!

1. Loyal APC customers save on Replacement Battery Cartridges.
2. Get details on special promotional offers on APC Back-UPS and Smart-UPS solutions.
3. Download your FREE informational brochure "The Seven Types of Power Problems".

Find APC power protection products at:

**COMPUSA**  
WHERE AMERICA BUYS TECHNOLOGY.

**CDW**

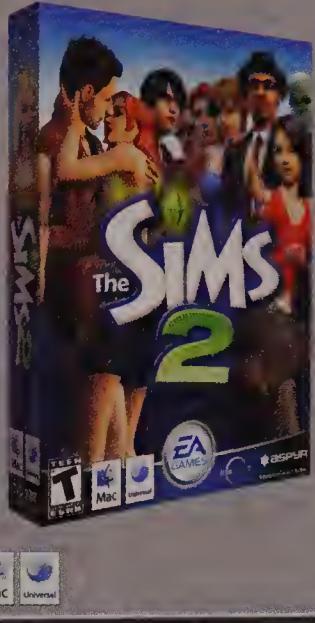
**Office DEPOT**  
Taking Care of Business

Visit [www.apc.com/promo](http://www.apc.com/promo) Key Code p872x  
Call 888-289-APCC x6940  
or Fax 401-788-2797

**APC**  
Legendary Reliability®



CREATE A FAMILY YOU ACTUALLY  
ENJOY THIS HOLIDAY

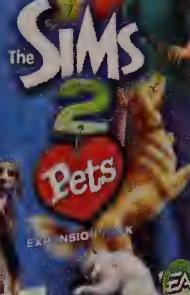


## Sims 2

The Next Generation People Simulator.

IN STORES NOVEMBER 2006

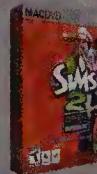
MACCD



## Sims 2 Pets

Create Perfect Pets for your Sims.

ALSO AVAILABLE



The Sims™ 2, The Sims™ 2 University, The Sims™ 2 Nightlife, The Sims™ 2 Open for Business and The Sims™ 2 Pets; © 2006 Electronic Arts Inc. Electronic Arts, The Sims, Maxis, the Maxis logo, EA, the EA logo and EA GAMES are trademarks or registered trademarks of Electronic Arts, Inc. in the U.S. and/or other countries. All rights reserved. EA™ and Maxis™ are Electronic Arts™ brands. The ratings icon is a registered trademark of the Entertainment Software Association. Aspyr is a registered trademark of Aspyr Media, Inc., and the Aspyr star logo is a trademark of Aspyr Media, Inc. Mac and the Mac logo are trademarks of Apple Computer, Inc., registered in the U.S. and other countries. All other trademarks are the property of their respective owners.

## ADOBÉ UPDATE ADDS UNIVERSAL SUPPORT

# Acrobat 8 Is on the Way

As the design and publishing markets wait for their bread-and-butter apps to make the move to Intel, Adobe has taken its first big step toward Universal support with the announcement of Adobe Acrobat 8, the latest version of the company's popular document-authoring and -reading software.

In addition to being Intel-native, Acrobat 8 includes several other useful features, including the ability to merge multiple files into a single PDF document; the ability to permanently remove sensitive text, images, metadata, and other content from PDF files to meet industry guidelines for information sharing; and enhanced markup tools.

Acrobat 8 users can also use Acrobat Connect, which lets online users discuss and edit documents or other material in real-time conferences, for a fee of \$39 a month or \$395 a year for each user. Acrobat Connect Professional, intended for large meetings, offers more features, including VoIP chat (no pricing has been set). Acrobat Connect will be available in early 2007, while Acrobat Connect Professional will be available in December 2006.

ADOBE ACROBAT 8  
PROFESSIONAL COMMUNICATE  
AND COLLABORATE WITH THE  
ESSENTIAL PDF SOLUTION

ADOBE ACROBAT 8 PROFESSIONAL



only added features, but also responded to the challenge to make them more understandable and accessible.

Adobe Acrobat is scheduled for release in November. Acrobat 8 Professional will cost \$449 (upgrades, \$159), and Acrobat 8 Standard will be \$299 (upgrades, \$99). The free Adobe Reader should also be updated soon.—JIM DALRYMPLE AND STEVEN SCHWANKERT



## MULTIMEDIA BEAT

DeckLink HD Studio, from Blackmagic Design ([www.blackmagic-design.com](http://www.blackmagic-design.com)): PCI Express-based video-capture and -playback card supports both High Definition Multimedia Interface (HDMI) and analog component video (\$995).

iScratch, from Red Rock Software ([www.iscratchwithoutrecords.com](http://www.iscratchwithoutrecords.com)): Application that lets DJs make scratch noises without a turntable includes tools to create basic scratches and a click tool that provides simulated mixer control (\$70).

MediaCentral 2.3, from Equinix ([www.equinix.com](http://www.equinix.com)): Update to multimedia-management software adds support for the online photo-sharing and blogging service Flickr (\$30; upgrade, free).



## PRODUCTIVITY BEAT

BBEdit 8.5, from Bare Bones Software ([www.barebones.com](http://www.barebones.com)): HTML and text editor adds support for the Ruby, SQL, and YAML languages, and sports an updated interface (\$125; upgrade from BBEdit 8, \$30; upgrade from BBEdit 7 and earlier, \$40).

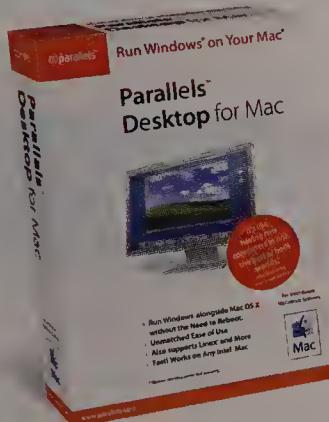
Cha-Ching, from A Midnight App ([www.chachingapp.com](http://www.chachingapp.com)): Money manager incorporates tag-based database for organizing and searching incoming and outgoing transactions (\$25).

StuffIt Deluxe 11, from Smith Micro Software ([www.stuffit.com](http://www.stuffit.com)): File-archiving and -compression software runs natively on Intel-based Macs and adds StuffIt Collections feature for grouping related files (\$80; upgrade, \$30).



# Mac + Windows. Have the best of both worlds.

Introducing Parallels Desktop™ for Mac, innovative software that lets you run any version of Windows\* at blazing speed, right alongside Mac OS X. And, best of all, **no rebooting is required!**



Now it's easy to run literally thousands of Windows applications like Access, Project, Money, Internet Explorer, ACT! and many others – all on your Mac and all while running OS X.

Parallels Desktop is a must-have for any Intel Mac owner.

- **Powerful!** Run Windows and OS X side-by-side on your Mac – either inside a window or at full-screen.
- **Fast!** Run Windows at blazing speed.
- **Easy!** Set up a “virtual machine” with a simple wizard-driven interface.
- **Convenient!** Copy and paste data and share files between Windows XP and Mac OS X.
- **Flexible!** Run multiple virtual machines at once – Windows, Linux, Solaris™ and more. No hard drive partitioning is required.

**Parallels Desktop for Mac.** Just \$79<sup>99</sup> and available now wherever Mac software is sold.

\*Windows operating system sold separately.

MW

Parallels Desktop for Mac is available now at ...

**COMPUSA**

**Apple® Store**

**STAPLES**

**Office DEPOT**

**amazon.com**

**Fry's ELECTRONICS**

**MICRO CENTER**

**MacMall**



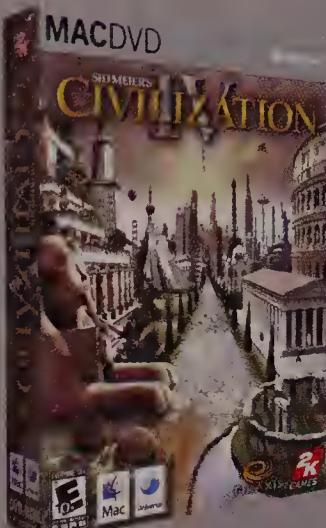
Nova Development Corporation  
23801 Calabasas Road  
Calabasas, CA 91302  
1-800-395-6682  
[www.novadevelopment.com](http://www.novadevelopment.com)

Or buy it today at

**[www.runwindowsonmac.com](http://www.runwindowsonmac.com)**



ADD SOME CIVILIZATION TO ANY  
MAC THIS HOLIDAY



Mac Universal

### Civilization IV

History, as you know it, is history.

IN STORES NOVEMBER 2006



Mac Universal

POWERED BY  
GameSpy

### Civilization IV Warlords

New Civilizations, Leaders, Units, and Wonders.

Civilization® IV and Civilization® IV Warlords: © 2005 Take-Two Interactive Software and its subsidiaries. All rights reserved. Sid Meier's Civilization IV, Civ, Civilization, 2K Games, the 2K Games logo, and Take-Two Interactive Software are trademarks of Take-Two Interactive Software, Inc. Developed by Firaxis Games. Firaxis is a trademark of Firaxis Games, Inc. Mac version published and distributed by Aspyr Media under license. Uses Blank Video. Copyright ©1997-2005 by RAD Game Tools, Inc. Uses Miles Sound System. Copyright ©1991-2005 by RAD Game Tools, Inc. Portions of this software are included under license. ©2005 Scalform Corporation. Portions of this software are included under license. ©1996-2005 Numerical Design, Ltd. All rights reserved. GameSpy and the "Powered by GameSpy" design are trademarks of GameSpy Industries, Inc. The ratings icon is a trademark of the Entertainment Software Association. The ratings icon is a registered trademark of the Entertainment Software Association. Aspyr is a registered trademark of Aspyr Media, Inc., and the Aspyr star logo is a trademark of Aspyr Media, Inc. Mac and the Mac logo are trademarks of Apple Computer, Inc., registered in the U.S. and other countries. All other trademarks are the property of their respective owners.

The ratings icon is a registered trademark of the Entertainment Software Association. Aspyr is a registered trademark of Aspyr Media, Inc., and the Aspyr star logo is a trademark of Aspyr Media, Inc. Mac and the Mac logo are trademarks of Apple Computer, Inc., registered in the U.S. and other countries. All other trademarks are the property of their respective owners.

## NOKIA ANNOUNCES WIBREE WIRELESS TECHNOLOGY

# Bluetooth Killer?

In an advancement that threatens to knock Bluetooth off the technological map, Nokia has developed a new short-range wireless technology that it says could overcome some of Bluetooth's shortcomings. Called Wibree, the technology aims to be a lot more power-efficient than Bluetooth, which means that smaller and less costly devices could use it. It can also use the same radio and antenna components as Bluetooth, keeping down the costs of design and implementation, according to Bob Iannucci, head of Nokia's research center, who unveiled the technology in Helsinki in early October.

The technology could compete with Bluetooth in the workplace as a way to link keyboards and other peripherals to computers. But it could also have more interesting uses in consumer devices such as wristwatches, toys, and sports equipment.

The technology is designed to communicate with a phone or other device within about 30 feet, and it can transfer data at 1 Mbps, according to Nokia. It

can be implemented in a stand-alone chip or in a dual-mode chip that includes both Bluetooth and Wibree.

Bluetooth has inherent power limitations because it includes a fixed packet size and frequency-hopping technology, says Iannucci. Wibree uses a different modulation technique that does a better job of avoiding interference, which he says reduces its power requirements.

Several companies are working with Nokia to define the Wibree specification, and they hope to submit the technology to a standardization process, which could help it gain wider support.

Wibree isn't the only newcomer to the short-range-wireless market, though. Zigbee is an ongoing project with characteristics similar to

Wibree's. However, because Wibree uses the same radio as Bluetooth does, Iannucci says that the economics of its deployment are better.

Whichever technology wins out, the competition should mean good news for consumers.—NANCY GOHRING



Nokia's Bob Iannucci



## STORAGE BEAT

**80GB Data to Go**, from I/OMagic ([www.iomag.com](http://www.iomag.com)): Portable hard drive features a USB 2.0 connection in a pocket-size 4.88-by-2.88-by-0.5-inch enclosure (\$120).

**DriveStation Duo**, from Buffalo Technology ([www.buffalotech.com](http://www.buffalotech.com)): External hard-disk drive with USB 2.0 and FireWire 400 interfaces comes configured as a RAID Level 1 system in capacities ranging from 500GB to 1.5TB (\$250 to \$1,000, depending on capacity).

**Extreme III CompactFlash memory cards**, from SanDisk ([www.sandisk.com](http://www.sandisk.com)): Cards come in 12GB and 16GB capacities with minimum read and write speeds of 20 MBps (12GB, \$780; 16GB, \$1,050).



## HARDWARE BEAT

**27dBm Transceiver**, from QuickerTek ([www.quickertek.com](http://www.quickertek.com)): Transceiver incorporates its own antenna to improve wireless networking coverage for MacBooks by a reported 100 percent (\$200).

**Ci25m**, from Kensington ([www.kensington.com](http://www.kensington.com)): Wired notebook mouse features retractable USB cable and three buttons (\$20).

**Ci65m**, from Kensington ([www.kensington.com](http://www.kensington.com)): Wireless notebook mouse features three buttons, a scrollwheel, and 1,000-dpi optical tracking (\$30).

**MFC-845CW**, from Brother ([www.brother.com](http://www.brother.com)): Multifunction color ink-jet printer with built-in Wi-Fi support prints 27 black-and-white and 22 color pages per minute, with support for up to 6,000-by-1,200-dpi resolution (\$250).

# Our Internet phone service comes with over a decade of Internet experience.

As for Vonage, well, their song is cute.



Linksys® Telephone Adapter (ATA)

## EarthLink trueVoice® Internet Phone Service from the **Internet Experts**

We've been bringing you Internet access since the beginning. So then, who better to get you talking over it? Meet EarthLink trueVoice. Unlimited local and long distance calling that will cut your phone bill by up to 50%<sup>†</sup>. Get all the calling features you love, backed by our ten plus years of Internet expertise and award-winning customer service. As for the other guys, well, let's just say this is their first time with the Internet thing.

### Free ATA hardware.

\$59.99 regular price  
- \$60 in mail-in rebates = **\$0**

With 12 month service agreement and activation fee of \$29.95

Plus, get a **\$50 gift card by mail from one of our select retailers.**



**\$19.95**  
for 6 months\*

Unlimited local and long distance to anywhere in the US, Canada and Puerto Rico.

POWERED BY  
**LINKSYS**  
A Division of Cisco Systems, Inc.

EarthLink trueVoice® uses Linksys® hardware.

<sup>†</sup>COMPARE TO REGULAR PHONE SERVICE: Local Service: \$35 + Long Distance: \$20 = Monthly Price: \$55 – Typical savings. Pricing varies by local provider.

©2006 EarthLink, Inc. \*Exclusive retail offer available for a limited time. Gift card and mail-in rebate apply to Unlimited Plan only. Gift card subject to rebate requirements and sent by mail with the rebate check. Service not available in all areas. Requires high speed Internet service. Per minute international rates vary by country and are always billed in addition to monthly fees. Promotional recovery fee of \$50 may apply. Service is for fixed residential use only. Certain taxes and other fees may apply. Monthly price of \$19.95 for the first 6 months, \$24.95 per month thereafter. E911 service may be limited or not available before service is activated or in the case of power or broadband service failure. Directory or operator assistance charges will apply. See [www.earthlink.net](http://www.earthlink.net) for all charges and rates. Cancellation must be by phone, US Mail or fax before the next billing period begins to avoid further charges. Other restrictions may apply. Trademarks are the property of their respective owners. All rights reserved.



**EarthLink**

## GAME NEWS



### Havok Engine New on the Mac

Havok ([www.havok.com](http://www.havok.com)), the maker of a middleware physics engine whose absence on the Mac platform may have contributed to the demise of more than one major game conversion, has announced that Blizzard Entertainment—developer of World of Warcraft, Diablo, and other popular Mac games—has licensed Havok's technology for new Mac games. Havok is used for everything from character animation to particle effects, and it produces startlingly realistic physics effects. This will mark the first time Havok will appear on the Mac in its modern incarnation, with advanced particle physics, rag-doll animations, and other capabilities now open to Blizzard games.

### New Xgaming Game Controller Released

Gaming products company Xgaming ([xgaming.com](http://xgaming.com)) has released its newest creation, the X-Arcade TankStick, which connects to your Mac via USB. The \$200 behemoth (it measures 30 inches across and weighs 20 pounds) re-creates an authentic coin-op arcade game experience by placing two joysticks, a massive track-

ball, and heavy-duty buttons on a surface that feels like it was pulled straight from a vintage arcade-game cabinet. The trackball is recognized by the Mac as a standard mouse, and the joysticks will work with an HID-compliant game. You can also buy adapters from Xgaming to make the TankStick work with game consoles such as the PlayStation 2, the Sega Dreamcast, and the Microsoft Xbox.



### Civilization IV Demo Now Available

If the high system requirements scared you away from Aspyr Media's conversion of Sid Meier's Civilization IV, now you can kick the tires and drive it around the block before you actually put your money down. The playable demo of the popular turn-based-strategy game walks you through the tutorial and lets you play up to 100 turns of a full game. The 452MB download is available from [macgamefiles.com](http://macgamefiles.com). —PETER COHEN

**FULL SAIL**  
Real World Education

[fullsail.com](http://fullsail.com)

800.226.7625

3300 University Boulevard Winter Park, FL 32792

Financial aid available to those who qualify. Career development assistance.  
Accredited College, ACCSCT

SCHOOL OF: COMPUTER ANIMATION > DIGITAL ARTS & DESIGN > ENTERTAINMENT BUSINESS > FILM > GAME DEVELOPMENT > RECORDING ARTS > SHOW PRODUCTION & TOURING



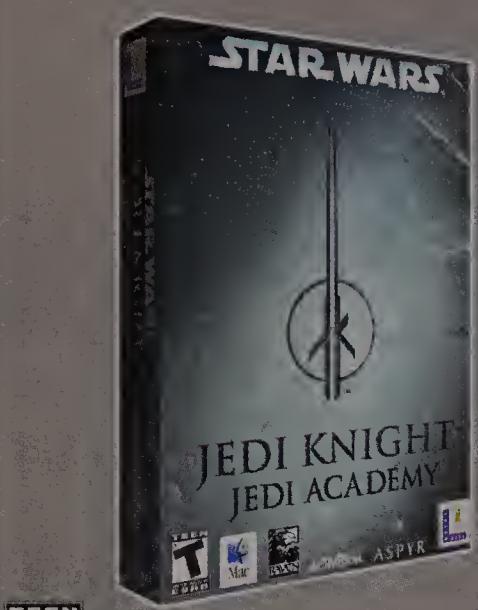
## GREAT GIFTS FOR ANY MAC



MATURE 17+  
M  
CONTENT RATED BY ESRB  
Mac Universal

### Doom 3

The Gateway to Hell is Open!



TEEN  
T  
CONTENT RATED BY ESRB  
Mac Universal

### Jedi Knight: Jedi Academy

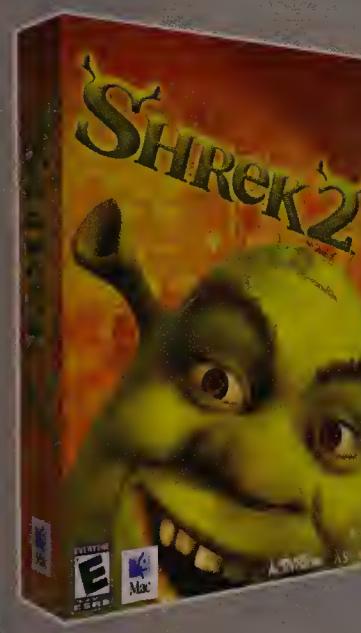
Forge Your Weapon and Follow the Path of the Jedi.



EVERYONE  
E  
CONTENT RATED BY ESRB  
Mac Universal

### Civ III Complete

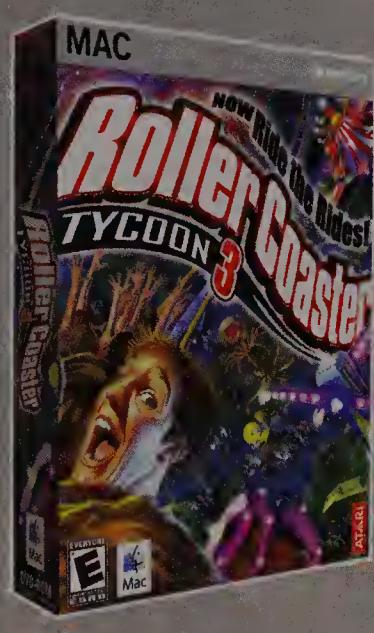
Includes Civilization III plus the Play the World and Conquests expansion packs.



EVERYONE  
E  
CONTENT RATED BY ESRB  
Mac Universal

### Shrek 2

The Adventure Continues



EVERYONE  
E  
CONTENT RATED BY ESRB  
Mac Universal

### Rollercoaster Tycoon 3

Build, Operate and "Attend" the Amusement Park of your Dreams!

THESE TITLES ALL RUN NATIVELY ON INTEL MACS WITH FREE DOWNLOADABLE PATCH  
[WWW.MACGAMEFILES.COM](http://WWW.MACGAMEFILES.COM)

[WWW.ASPYR.COM](http://WWW.ASPYR.COM)

Fair Use Statement: Aspyr Media Inc. Aspyr Media Inc. is a registered trademark of Aspyr Media Inc. in the U.S. and other countries. All other trademarks and/or registered trademarks are the property of their respective owners.  
Rollercoaster Tycoon 3: © 2005 Atari Interactive, Inc. All rights reserved. © 2005 Chris Sawyer. Programming © 2005 Frontier Developments Ltd. Developed by Frontier Developments Ltd. All rights reserved. Manufactured and marketed by Atari, Inc., New York, NY. ATI and RADIANT are trademarks and/or registered trademarks of ATI Technologies Inc. Civilization III Complete: © 2005 Take-Two Interactive Software and its subsidiaries. All rights reserved. 2K Games, the 2K Games logo, and Take-Two Interactive Software are all trademarks and/or registered trademarks of Take-Two Interactive Software, Inc. Sid Meier's Civilization®, Civ® and Civilization® are U.S. registered trademarks. Star Wars Jedi Knight: Jedi Academy LucasArts and the LucasArts logo are registered trademarks of Lucasfilm Ltd. ©2003 Lucasfilm Entertainment Company Ltd. or Lucasfilm Ltd. ® or TM as indicated. All rights reserved. Shrek is a registered trademark of DreamWorks L.L.C. Shrek 2, Shrek Ear Design and Shrek "S"™ and © 2004 DreamWorks L.L.C. Published and Distributed by Aspyr Media under license from Activision Publishing, Inc. Game code © 2004 Activision, Inc. and its affiliates. Activision is a registered trademark of Activision, Inc. and its affiliates. All rights reserved.

The ratings icon is a registered trademark of the Entertainment Software Association. Aspyr is a registered trademark of Aspyr Media, Inc., and the Aspyr star logo is a trademark of Aspyr Media, Inc. Mac and the Mac logo are trademarks of Apple Computer, Inc., registered in the U.S. and other countries. All other trademarks are the property of their respective owners.



### Case-Mate Sleevez

Tough plastic shell surrounded by Italian pebblestone leather. Multiple colors for MacBook and Macbook Pro.



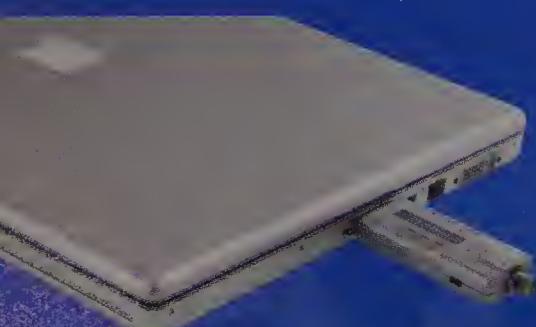
### Case-Mate Handle-It

A leather and aluminum handle lets you carry your MacBook or MacBook Pro in style. Flips under to improve viewing and typing and improves airflow.



### Marware Sportfolio Deluxe

A sleek, sporty case that protects your Apple notebook. Use it with the padded shoulder strap and carry it briefcase style.



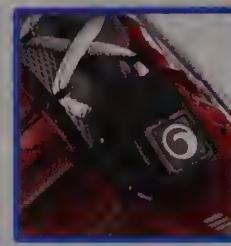
### elgato EyeTV Hybrid

Watch analog as well as digital TV on a Mac using a small, beautifully designed USB stick. Record, edit, and enjoy.



### Marware Sportsuit Sprinter

Designed for runners, active walkers, and anyone who wants a secure way to hold and control their iPod nano 2G in their hand.



### Sportsuit Sensor

Allows athletes to attach the Nike + iPod sensor to their favorite shoes.



### Sportsuit Convertible

Made of supple orca-skin neoprene, Convertible offers protection sans bulk. An innovative flip-open lid, armband, and patented, versatile Multidapt clip make this one of Santa's favorites.



### i-F2 from Sonic Impact

i-F2 gives you the power to decide where, when, and how to listen to your music. i-F2 has a built-in dock, 15 hour battery, six button remote, and great big sound in a compact and durable package.

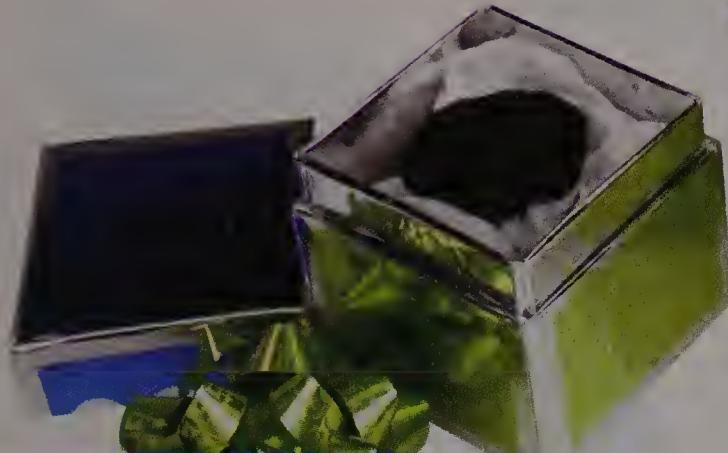


### Griffin iTalk Pro

Whether you're taking lecture notes, conducting an interview, or want to bring the sounds of the great outdoors in, your only limitations are your iPod's capacity and your imagination.

Buy Dr. Bott products at your friendly neighborhood Mac or iPod store. Find one online at <http://www.drbott.com/local> or call 800.541.1130

# Naughty



# or Nice?



**iuneFM**  
*Ikin*  
relessly listen to your  
od through your car  
stereo quickly and  
sily using any clear  
frequency.



**Waterproof iPod!**  
*H2O Audio*  
Enjoy your iPod safely  
on the water. Designed  
for surface watersports  
such as surfing or  
swimming.



**Luxe nano 2G**  
*Case-mate*  
The feel of rich Napa  
leather, accentuated  
with the brilliance of  
Swarovski crystals in  
iPod hues.



**TuneCenter**  
*Griffin*  
Attach TuneCenter to  
your television and  
stereo for watching and  
listening to your iPod  
music library.



**iKaraoke**  
*Griffin*  
iKaraoke sends music  
from your iPod to your  
stereo minus lead vocals,  
so you can step up to the  
mic and sing the lead.



**Coolpad**  
*road Tools*  
ergonomics for you  
and heat dissipation for  
your laptop, this swivel  
and adjusts to raise  
lower your laptop.



**Sportfolio Sleeve**  
*Marware*  
Sleek neoprene style  
and minimal bulk. The  
Sleeve protects your  
notebook in a briefcase  
or backpack.



**MoniSwitch Pro**  
*Dr. Bott*  
Allows up to 4 computers  
with digital video output  
to share a flat panel display  
or LCD-TV with DVI input.



**T3Hub 2.0**  
*Dr. Bott*  
T3Hub enables you to  
connect any 3 USB 2.0  
devices to your computer -  
all in a thumb-sized unit.



**Signature Suit**  
*Case-mate*  
Suits are form-fit leather  
wraps built for MacBook.  
Snug protection offering  
security and style.  
Multiple colors.

## Where Santa shops for all his iPod & Mac stuff

OUTSTANDING:  
VERY GOOD:  
GOOD:  
FLAWED:  
UNACCEPTABLE:



## iMac Powerhouse

Huge 24-Inch Screen and Core 2 Duo Processor Pack a Wallop

BY JONATHAN SEFF

The iMac was originally conceived of as a relatively compact all-in-one computer, and that was a large part of its appeal. *Compact*, however, is not a word most people would use to describe the 24-inch iMac, which features the latest Apple technology packed behind a massive flat-panel display. But for people who want a fairly professional system without jumping to a Mac Pro (4½; [macworld.com/1646](http://macworld.com/1646)), the new large-screen iMac represents a middle ground. This system performs impressively but doesn't have the expansion options of a Pro tower.

### The (Really) Big Picture

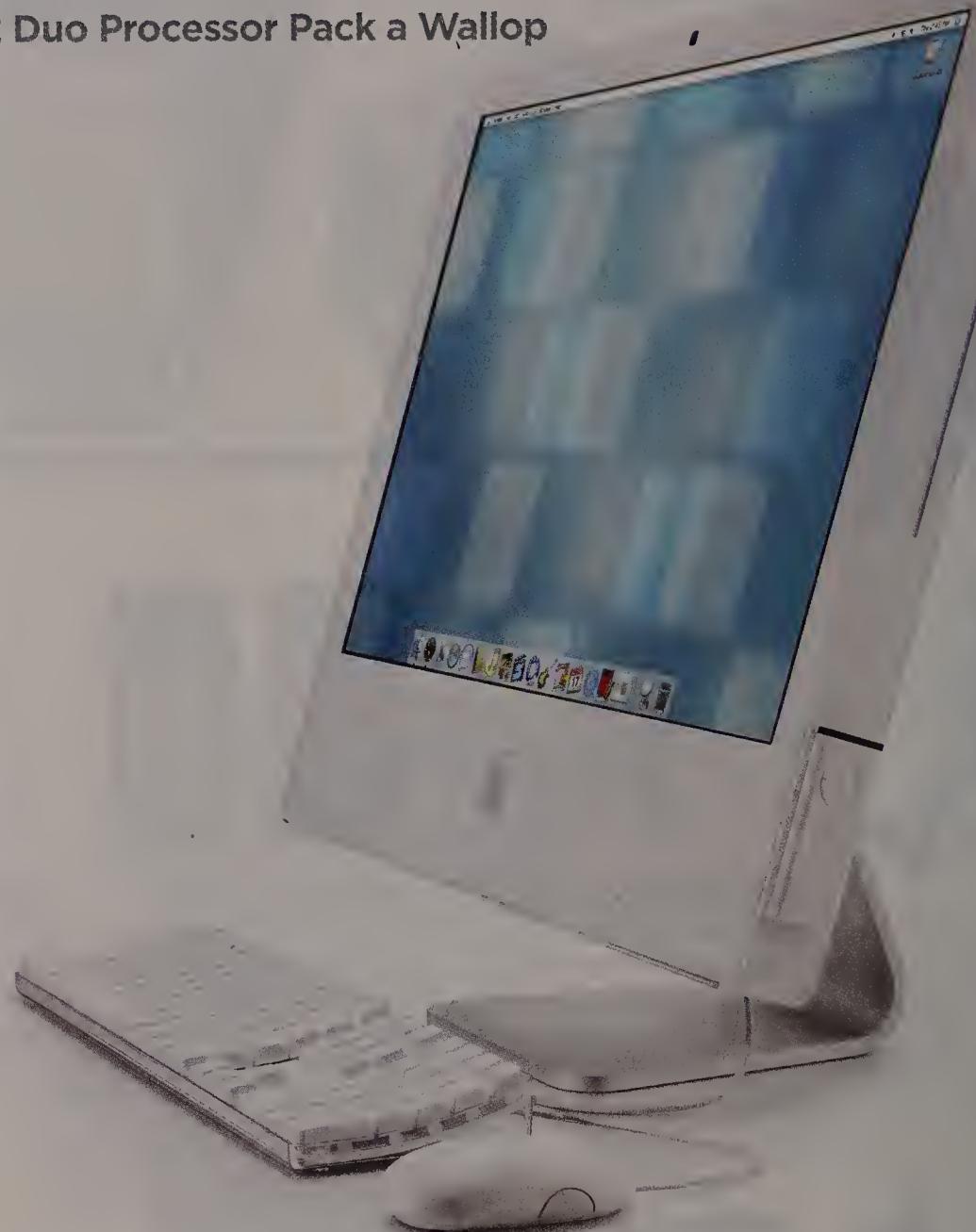
Sitting on a desk, the 24-inch iMac is monumental. Its large, wide-screen display offers a resolution of 1,920 by 1,200 pixels, the same as Apple's \$999 23-inch Cinema HD Display (4½; [macworld.com/0278](http://macworld.com/0278)). And like Apple's 23-inch display, the iMac has enough resolution to show off many windows and palettes, and every pixel of full 1,080 high definition video. Compared with the previous largest iMac, the 20-inch model (4½; [macworld.com/1180](http://macworld.com/1180)), this one has 30 percent more pixels.

But as with most of Apple's new displays, the 24-inch iMac display doesn't just give you more screen real estate. It's roughly 43 percent brighter than the new 20-inch model's display, with the same 400 candelas per square meter (also called *nits*) as Apple's 23-inch and 30-inch Cinema HD Displays (4½; [macworld.com/1033](http://macworld.com/1033)). The brightness of this screen is very pleasing.

Even with the gigantic display, the iMac feels sturdy and well-balanced. With its thin design, the iMac weighs only 24.7 pounds—just 2.7 pounds more than the 20-inch model.

### What's Inside

The 24-inch iMac has a 64-bit, 2.16GHz Intel Core 2 Duo processor with 4MB of shared Level 2 cache (two times the cache of Core Duo iMacs) that's connected to the system with a 667MHz frontside bus. This iMac comes standard with 1GB of 667MHz DDR2 SDRAM, although that RAM is split between two 512MB SO-DIMMs,



leaving no open RAM slots. So upgrading will be expensive because it requires that you toss at least one of the DIMMs to make room for a new one. Also, the Intel chip set that Apple uses in the iMac allows the operating system to address only 3GB of RAM at a time—and in total. So even if you put 4GB of RAM (split between two 2GB DIMMs) in the iMac, the computer would still function as though it had only 3GB.

The iMac also comes with a 250GB Serial ATA hard drive, an 8x double-layer SuperDrive, and Nvidia GeForce 7300 GT graphics with 128MB of GDDR3 memory. It includes built-in AirPort Extreme and Bluetooth 2.0 wireless networking, mini-DVI video output, a built-in iSight camera, an Apple Remote, three USB 2.0 ports (plus

two USB 1.1 ports on the included keyboard), one FireWire 400 port, one FireWire 800 port (good for swiftly connecting to storage devices), Gigabit Ethernet, and combination ports for analog- and digital-audio input and output (previous iMacs had analog-only audio input).

### Performance

To see how well this top-of-the-line iMac performs, Macworld Lab put it through our standard suite of tests. The 24-inch iMac garnered an impressive Speedmark score of 245, only nine points below the 2GHz Mac Pro (not surprisingly, the 24-inch iMac earned the same Speedmark score as the new 20-inch model, which has the same processor).

REVIEWS YOU CAN TRUST Macworld rates only final shipping products, not prototypes. What we review is what you can actually buy.

Judging from the test scores, the 24-inch iMac seems to bridge the performance gap between standard iMacs and Mac Pros. Compared with the previous high-end iMac—the 20-inch 2GHz Core Duo model—the 24-inch iMac showed a nearly 17 percent overall Speedmark improvement. Most impressively, the 24-inch iMac outperformed the Core Duo 20-inch iMac by 28 percent in our MPEG-2 Encode test using Apple's Compressor. And the Cinema 4D Render test showed a 20 percent jump—good numbers even for a pro system.

Another big improvement is that the new iMac pumped out more than 25 additional frames per second in our Unreal Tournament test, a nearly 47 percent boost in frame rate compared with the 20-inch Core Duo model. The included Nvidia graphics chip is good news for gamers. (Users interested in getting the best performance can replace the GeForce 7300 GT with the GeForce 7600 GT, which has 256MB of video memory, for an additional \$125. This is the first iMac with an option to upgrade the graphics processor.)

As with all current Macs, software that hasn't been updated to run natively on Intel processors runs slower than it would on a PowerPC chip. But the new iMac completed our suite of 14 tasks in Adobe Photoshop CS2 24 percent faster than the old 20-inch model did—a respectable jump.



**Port Authority** The 24-inch iMac sports a FireWire 800 port—the first for an iMac—while the entire new iMac line features audio ports that accommodate both analog and digital input.

### Quick Operations

For general operations, the 24-inch iMac's overall responsiveness was excellent. Opening, dragging, and resizing windows was very quick. HD video playback was smooth, and working in Intel-native applications such as Apple's Final Cut Pro (4½; macworld.com/0695), Motion (4½; macworld.com/0697), iMovie (4½; macworld.com/1737), and iWeb (4½; macworld.com/1738) was snappy. (You can custom configure a 24-inch model with a 2.33GHz Core 2 Duo processor for an extra \$250. Our benchmark chart shows performance improvements with this faster chip.)

The 24-inch iMac also has an upgraded sound system, with a 24-watt digital amplifier (twice that of the other models) to power the built-in stereo speakers. The sound was much louder than on any other iMac—and it was fairly good quality. (Audiophiles will probably want a separate set of powered computer

speakers or want to connect the iMac's digital audio output to a good home-theater system.)

### Macworld's Buying Advice

The 24-inch iMac occupies the vast stretch between the smaller iMacs and the Mac Pro. It scores basically the same as the 20-inch iMac, but the \$500 difference gives you a larger and brighter display, a FireWire 800 port, and a better graphics system. Compared with the Mac Pro, it adds a built-in display and iSight camera, as well as a degree of portability, but you sacrifice the Mac Pro's quad-core processing power and significant internal expansion options. If you're looking for the ultimate iMac with some of the pro-level features the Mac Pro provides, you'll find the 24-inch iMac placed perfectly in that middle ground. □

JONATHAN SEFF is Macworld's senior news editor.

Macworld	Speedmark 4.5		Adobe Photoshop CS2		Cinema 4D XL 9.5.21		Compressor 2.1		iMovie 6.0.2		iTunes 6.0.4		Unreal Tournament 2004		Finder	
	OVERALL SCORE	SUITE		RENDER		MPEG-2 ENCODE		AGED EFFECT		MP3 ENCODE		FRAME RATE		ZIP ARCHIVE		
17-Inch iMac Core 2 Duo/1.83GHz	202			2:17		1:13		3:07		1:02		1:10		21.7		2:46
17-Inch iMac Core 2 Duo/2GHz	232			2:04		1:06		2:50		0:57		1:03		65.5		2:34
20-Inch iMac Core 2 Duo/2.16GHz	245			1:55		1:01		2:37		0:52		1:03		74.4		2:22
24-Inch iMac Core 2 Duo/2.16GHz	245			1:55		1:01		2:25		0:51		1:06		79.3		2:22
24-Inch iMac Core 2 Duo/2.33GHz <sup>A</sup>	259			1:47		0:57		2:12		0:48		0:56		83.6		2:15
20-Inch iMac Core Duo/2GHz	210			2:31		1:11		3:21		1:03		1:26		54.1		2:34
Mac Pro/2GHz	254			1:50		0:37		1:57		0:48		0:59		73.4		2:32
	>Better	<Better		<Better		<Better		<Better		<Better		>Better		<Better		

BEST RESULTS IN **BOLD**. REFERENCE SYSTEMS IN *ITALICS*. <sup>A</sup>Denotes build-to-order model with upgraded video card.

Speedmark is a suite of 15 tasks using the Finder and eight other applications. Only a portion of those tests are represented in this chart. The individual scores are relative to those of a 1.25GHz Mac mini, which is assigned a score of 100. Adobe Photoshop, Cinema 4D XL, Compressor, iMovie, iTunes, and Finder scores are in minutes:seconds. All systems were running Mac OS X 10.4.7, with 1GB of RAM and with processor performance set to Highest in the Energy Saver preference pane when applicable. The Photoshop Suite test is a set of 14 scripted tasks using a 50MB file. Photoshop's memory was set to 70 percent and History was set to Minimum. We recorded how long it took to render a scene in Cinema 4D XL. We used Compressor to encode a 6-minute-and-26-second DV file using the DVD: Fastest Encode 120 minutes - 4:3 setting. In iMovie, we applied the Aged video effect to a 1-minute movie. We converted 45 minutes of AAC audio files to MP3 using iTunes' High Quality setting. We used Unreal Tournament 2004's Antalus Botmatch average-frames-per-second score; we tested at a resolution of 1,024 by 768 pixels, at the Maximum setting, and with both audio and graphics enabled. We created a Zip archive in the Finder from a 1GB folder. The Photoshop CS2 and Compressor tests are not part of Speedmark and do not factor into the Speedmark overall score. To compare Speedmark 4.5 scores for various Mac systems, visit our Apple Hardware Guide at [macworld.com/0815](http://macworld.com/0815).—MACWORLD LAB TESTING BY JAMES GALBRAITH AND JERRY JUNG

# New iMac Lineup Showcases Intel's Core 2 Duo Processors

Speed Boost and Lower Prices for 17-Inch and 20-Inch Models

BY JONATHAN SEFF

These days, whenever Intel announces a new processor, it's only a matter of time before that chip ends up in a Mac. Apple's latest iMacs—two 17-inch models running at 1.83GHz and 2GHz, the 20-inch model at 2.16GHz, and the 24-inch model at 2.16GHz—are the first Apple hardware to incorporate Intel's Core 2 Duo processor. (For a review of the 24-inch iMac, see page 34.)

With the new iMacs, Apple has filled out its all-in-one desktop line with four models that fit almost every budget and fulfill almost any desire for display size and features. But performance gains from the new chips are modest compared with the Core Duo iMacs.

## The Models

Two Core 2 Duo 17-inch iMacs and one Core 2 Duo 20-inch iMac replace the old crop of iMacs—the \$1,299 17-inch 1.83GHz Core Duo model and the \$1,699 20-inch 2GHz Core Duo model (both **4½**; [macworld.com/1180](http://macworld.com/1180)). And the new prices should appeal to a wide range of buyers.

At \$999, the 17-inch 1.83GHz Core 2 Duo iMac—the first flat-panel iMac for less than \$1,000—is a stripped-down model. It has the same 2MB of shared L2 cache as the previous iMacs, and it's the only iMac model to ship without built-in Bluetooth 2.0 wireless networking, an Apple Remote, or a SuperDrive. It's very similar to the iMac that Apple sells to educational institutions for



\$899 (**4½**; [macworld.com/1607](http://macworld.com/1607)): it includes 512MB of 667MHz RAM on two 256MB DIMMs, a 24x Combo drive, AirPort Extreme wireless networking, and Intel's GMA 950 integrated graphics chip. The graphics processor borrows 64MB of RAM from the system's main memory, so you may want to spend the extra \$75 to upgrade to 1GB of RAM (the maximum is 2GB).

The 17-inch 2GHz and 20-inch 2.16GHz models are nearly identical except for their different processor speeds, hard-drive capacities (160GB versus 250GB), and display sizes—their screens feature 1,440-by-900-

pixel resolution and 1,680-by-1,050-pixel resolution, respectively. Each has 4MB of shared L2 cache, an 8x double-layer SuperDrive, ATI Radeon X1600 graphics with 128MB GDDR3 memory, built-in AirPort Extreme and Bluetooth 2.0 wireless networking, and an Apple Remote. Each model also comes with 1GB of 667MHz RAM, which is split between two 512MB SO-DIMMs.

It's great that Apple has made 1GB of RAM the standard on these two models. Unfortunately, upgrading RAM (up to the maximum of 3GB) requires removing one included DIMM to gain a free RAM slot—making it more expensive and wasteful to upgrade RAM on your own.

Each of the three models has a built-in iSight video camera, Gigabit Ethernet, an Apple Keyboard and Mighty Mouse, three USB 2.0 ports (plus two USB 1.1 ports on the keyboard), two FireWire 400 ports, built-in stereo speakers with 12 watts of digital amplification, a built-in microphone, and analog and digital audio input and output.

## CORE 2 DUO iMACS COMPARED

COMPANY	PRODUCT	RATING	PRICE	CONTACT	PROS	CONS
Apple Computer	17-inch iMac Core 2 Duo/1.83GHz	<b>4½</b>	\$999	<a href="http://www.apple.com">www.apple.com</a>	Attractive price; good performance.	2GB-RAM limit; lack of free RAM slot makes for costlier memory upgrades; limited internal expansion options; missing some features the other models have.
Apple Computer	17-inch iMac Core 2 Duo/2GHz	<b>4½</b>	\$1,199	<a href="http://www.apple.com">www.apple.com</a>	Strong performance; similar feel to 20-inch model; 1GB of RAM standard.	3GB-RAM limit; lack of free RAM slot makes for costlier memory upgrades; limited internal expansion options.
Apple Computer	20-inch iMac Core 2 Duo/2.16GHz	<b>4½</b>	\$1,499	<a href="http://www.apple.com">www.apple.com</a>	Nearly identical performance to 24-inch model; large and bright display; 1GB of RAM standard.	3GB-RAM limit; lack of free RAM slot makes for costlier memory upgrades; limited internal expansion options.
Apple Computer	24-inch iMac Core 2 Duo/2.16GHz	<b>4½</b>	\$1,999	<a href="http://www.apple.com">www.apple.com</a>	Bright 24-inch display; strong application performance; impressive graphics system; FireWire 800 port for fast peripheral connection.	3GB-RAM limit; lack of free RAM slot makes for costlier memory upgrades; limited internal expansion options.

## Performance

All the new iMacs performed strongly and bested the previous top-rated iMac—the 20-inch 2GHz Core Duo model—in most tests. The 2GHz 17-inch Core 2 Duo iMac, running at the same processor speed as the old 20-inch model, scored 10 percent higher in our Speedmark suite, while the 2.16GHz 20-inch Core 2 Duo iMac was 17 percent better—and both new models cost hundreds of dollars less.

And although the 1.83GHz Core 2 Duo iMac clocked eight points behind the previous continues on page 45



# Watch iTunes Movies on your TV Tonight with HomeDock Deluxe



1

Purchase Movies & Videos  
from the iTunes store



2

Download them to  
your Video iPod



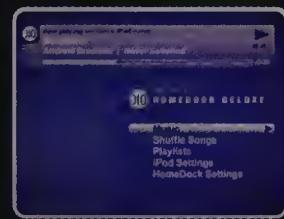
3

Dock to HomeDock Deluxe  
and let Movie Night begin

## DLO | HomeDock Deluxe™

### HOME ENTERTAINMENT DOCK FOR IPOD WITH ON-TV NAVIGATION

Connect your iPod to the HomeDock Deluxe to enjoy all your favorite music, pictures and videos at home. View and navigate your nano's music right on your TV screen. Play and control your 5G iPod's videos just like a DVD player with the included remote. Enjoy your iPod at home like never before with the ultimate home accessory for your iPod – the HomeDock Deluxe.



On-TV Music Navigation



View Picture Slideshows



Info Screen Savers



DIGITAL LIFESTYLE OUTFITTERS • EVERYTHING FOR YOUR IPOD AND MORE • LEARN MORE AT [WWW.DLO.COM](http://WWW.DLO.COM)

©2006 Digital Lifestyle Outfitters. iPod is a registered trademark of Apple Computer, Inc. Digital Lifestyle Outfitters, the DLO logo and HomeDock Deluxe are trademarks of Digital Lifestyle Outfitters, Inc. All Rights Reserved.

# New Mac Minis Get Speed Boost

All Tiny Macs Now Have Core Duo Chips

BY JASON SNELL

Lost amid the flurry of Apple's late-summer product announcements was a small but significant upgrade to the Mac mini line: Apple dropped the low-end 1.5GHz Mac mini Core Solo, lowered the price of the 1.66GHz Mac mini Core Duo model to \$599, and released a new top-of-the-line \$799 Mac mini, powered by a 1.83GHz Core Duo processor. It's a solid, if unexciting, upgrade to Apple's smallest desktop Mac.

Except for the processor, the new high-end Mac mini is essentially identical to the first round of Mac minis with Intel processors ([macworld.com/1501](http://macworld.com/1501)), which were released earlier this year: it comes with an Apple Remote, a built-in infrared receiver for the remote, and Apple's Front Row media-playback software, but not with a keyboard, mouse, or display.

The 1.83GHz Intel Core Duo processor powering the new Mac mini runs at a clock speed that's roughly 10 percent faster than the previous top-of-the-line, 1.66GHz mini model. And the end result is that the new model is generally 10 to 15 percent faster than its predecessor in Macworld Lab's battery of application tests. Its overall score of 165 in our Speedmark test suite makes it the fastest Mac mini yet, but it's noticeably slower than the iMacs, which have been upgraded to the more

powerful Intel Core 2 Duo processor.

The other half of the Mac mini product line, the \$599 model with a 1.66GHz Core Duo processor, is largely the same system as the previous high-end Mac mini; in reducing its price by \$200, Apple has also swapped its SuperDrive for a CD-burning, DVD-reading Combo drive and reduced its internal hard-drive capacity by 20GB, to 60GB. The new version of this system is the same speed as the old model, but it received a higher Speedmark score. This is almost entirely due to the hard drive. The smaller drive performed better for disk-based activities such as the Finder's Zip Archive tests.

Though the Mac mini does have some limitations, it's impressively full featured. It has built-in AirPort Extreme and Bluetooth 2.0, and it supports Gigabit Ethernet networking. The 1.83GHz model comes with a DVD-burning SuperDrive, and all Mac mini models are powered by an internal SATA drive.

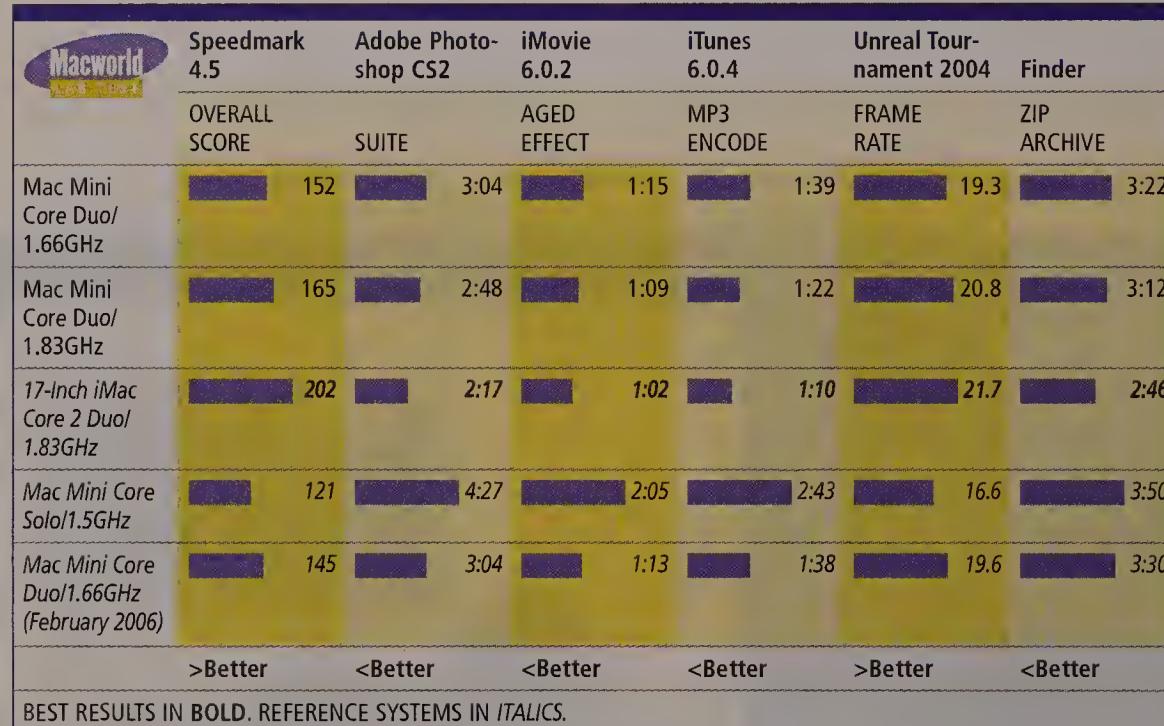
The Mac mini's biggest weakness is its use of Intel's GMA 950 integrated graphics system, which borrows memory from the computer's main memory. While the Mac mini

and the GMA 950 are capable of playing back HDTV-quality video, 3-D performance for game play was unacceptable.

Also, if you buy a new mini, consider having Apple or a reseller upgrade its RAM beyond the stock 512MB, to save yourself the struggle of opening the case and throwing away a pair of 256MB RAM modules.

## Macworld's Buying Advice

Both of these new Mac mini models are good values, and Apple made an excellent choice in dropping the underpowered Core Solo-based model—the last single-core Mac in Apple's computer product line. As a budget Mac, a supplemental home computer, a server, or a home media set-top box, the Mac mini has a price and a size that make it an impressively versatile system. (For a longer version of this review, see [macworld.com/1768](http://macworld.com/1768).) □



BEST RESULTS IN **BOLD**. REFERENCE SYSTEMS IN *ITALICS*.

Speedmark is a suite of 15 tasks using the Finder and eight other applications. Only a portion of those tests are represented in this chart. The individual scores are relative to those of a 1.25GHz Mac mini, which is assigned a score of 100. Adobe Photoshop, iMovie, iTunes, and Finder scores are in minutes:seconds. All systems were running Mac OS X 10.4.7, with 1GB of RAM and with processor performance set to Highest in the Energy Saver preference pane when applicable. The Photoshop Suite test is a set of 14 scripted tasks using a 50MB file. Photoshop's memory was set to 70 percent and History was set to Minimum. In iMovie, we applied the Aged video effect to a 1-minute movie. We converted 45 minutes of AAC audio files to MP3 using iTunes' High Quality setting. We used Unreal Tournament 2004's Antalus Botmatch average-frames-per-second score; we tested at a resolution of 1,024 by 768 pixels, at the Maximum setting, and with both audio and graphics enabled. We created a Zip archive in the Finder from a 1GB folder. The Photoshop CS2 test is not part of Speedmark and does not factor into the Speedmark overall score. To compare Speedmark 4.5 scores for various Mac systems, visit our Apple Hardware Guide at [macworld.com/0815](http://macworld.com/0815). For an expanded version of this chart, see [macworld.com/1768](http://macworld.com/1768). —MACWORLD LAB TESTING BY JAMES GALBRAITH AND JERRY JUNG

## MAC MINI CORE DUO/1.66GHZ

RATING:

**PROS:** Decent dual-core processor performance; Gigabit Ethernet; analog- and digital-audio input and output; built-in AirPort Extreme and Bluetooth 2.0; includes Front Row software and an Apple Remote.

**CONS:** Integrated graphics reduces available RAM; unsuitable for gaming; RAM is difficult to upgrade; not enough built-in RAM.

**PRICE:** \$599

**COMPANY:** Apple Computer, [www.apple.com](http://www.apple.com)

## MAC MINI CORE DUO/1.83GHZ

RATING:

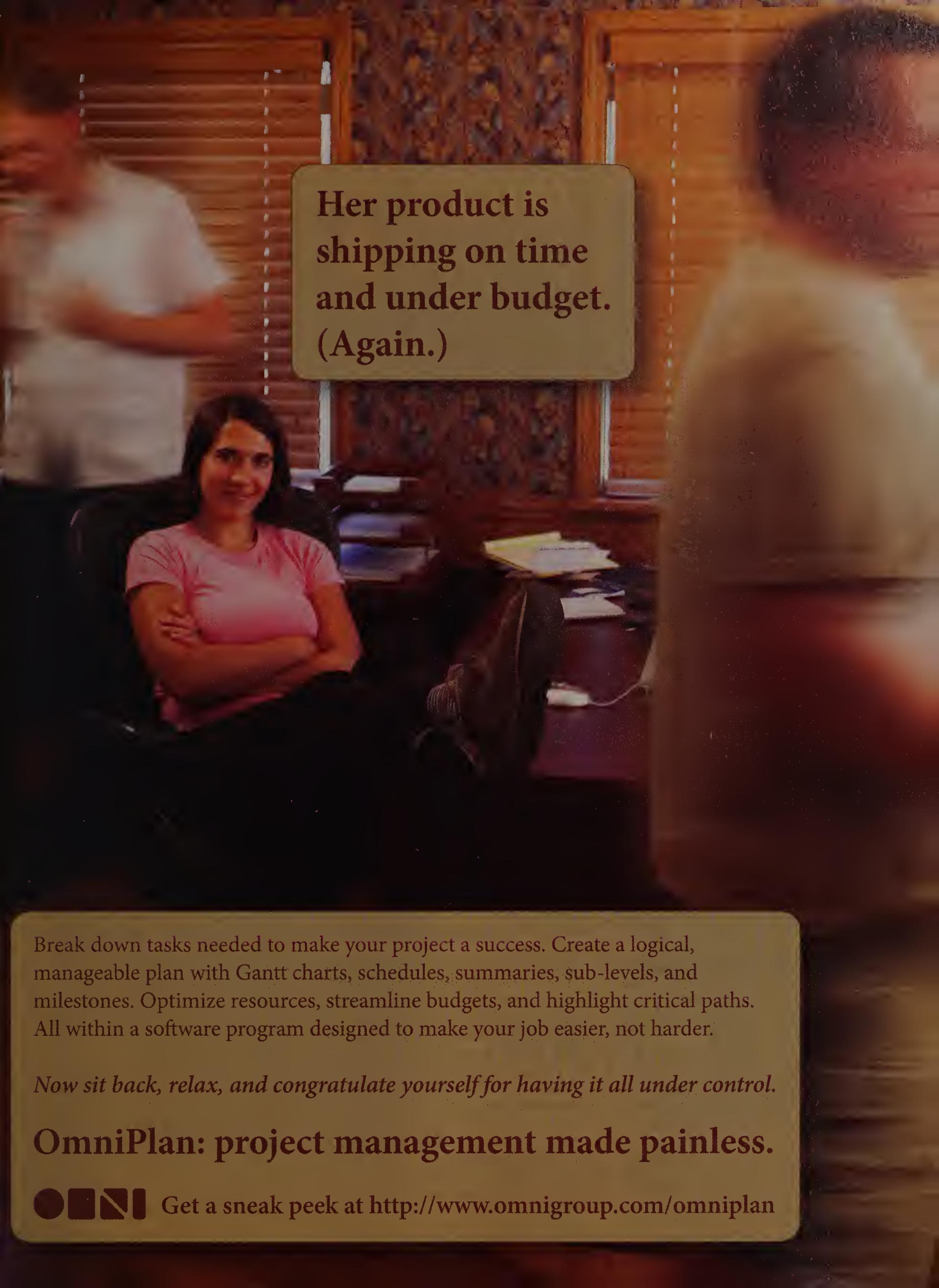
**PROS:** Decent dual-core processor performance; built-in SuperDrive; Gigabit Ethernet; analog- and digital-audio input and output; built-in AirPort Extreme and Bluetooth 2.0; includes Front Row software and an Apple Remote.

**CONS:** Integrated graphics reduces available RAM; not suitable for gaming; RAM is difficult to upgrade; not enough built-in RAM.

**PRICE:** \$799

**COMPANY:** Apple Computer, [www.apple.com](http://www.apple.com)

JASON SNELL is Macworld's editorial director.



Her product is  
shipping on time  
and under budget.  
(Again.)

Break down tasks needed to make your project a success. Create a logical, manageable plan with Gantt charts, schedules, summaries, sub-levels, and milestones. Optimize resources, streamline budgets, and highlight critical paths. All within a software program designed to make your job easier, not harder.

*Now sit back, relax, and congratulate yourself for having it all under control.*

**OmniPlan: project management made painless.**



Get a sneak peek at <http://www.omnigroup.com/omniplan>

# Colorful Second-Generation iPod Nanos

Updated Midsize iPod Finds Inspiration in the Past

BY CHRISTOPHER BREEN

Only in the fast-paced world of technology would the phrase "What's old is new again" refer to a product that's been dead for barely a year. And yet, how else would you describe the second-generation (2G) iPod nano but as the resurrection of the iPod mini (**4½**; [macworld.com/1745](http://macworld.com/1745))—in the form of a *mini* *mini*?

## Something Borrowed, Something New

Though the new iPod nanos look positively Lilliputian when placed next to an iPod mini, they're very much a restatement of the earlier nano. The new iPod nanos are available in capacities of 2GB, 4GB, and 8GB (for \$149, \$199, and \$249, respectively). They sport the same kind of scratch-resistant aluminum shell, rounded edges, and, in the 4GB version, a colorful exterior, as the iPod mini did. The lowest priced nano comes in silver; the 4GB model can be had in silver or a bright blue, green, pink, or red; and the 8GB nano is offered only in brushed-metal black. Like the iPod mini, the new nanos feel solid in your hand, more so than the original nano (**4½**; [macworld.com/0817](http://macworld.com/0817)).

Despite the external trappings, the 2G iPod nano has much more in common with the 1G nano. It's approximately the same height, though a bit thinner at 0.26 inches thick versus the original's 0.27 inches. Its headphone port is on the bottom; however, there's a wider space between the headphone port and the dock connector on the new nano, so it's impossible to use some 1G nano accessories—such as some lanyards, portable speakers, and FM transmitters—that plug into both the dock and headphone ports.) You can sync the nano only via USB, and you'll notice that it has all the features found on the 1G nano, including Volume Limit, Stopwatch, Screen Lock, and support for the Nike + iPod Sport Kit. It also sounds just as good as the previous nano.

### RATING:

**PROS:** Bright screen; solid battery life; alphanumeric overlay browsing feature; support for voice memos; rugged exterior; bright colors; improved Center button.

**CONS:** Earbuds won't fit everyone; text search can be tedious; takes longer to sync than previous nano.

**PRICE:** 2GB, \$149; 4GB, \$199; 8GB, \$249

**COMPANY:** Apple Computer, [www.apple.com](http://www.apple.com)



## Search Enhancements

The 2G iPod nano includes a search feature that you can access via a Search command at the bottom of the Music screen (or, you can choose to enable the feature via the Main Menu command in the Settings screen, so it appears at the bottom of the main menu). Choose this command and press the Center button to be transported to the Search screen. Here you use the scroll wheel to select letters on the screen. Choose a letter, press the Center button, and the track list is whittled down to include just entries that begin with that letter. Continue dialing in letters to narrow your search and a numeric display shows how many tracks match. Scroll back to the Done command, press the Center button, and the track list changes to a Search Results screen where you choose your item—an artist name, album name, or track title.

The Search command is smarter than it appears. It prioritizes items that begin with the letters you input, but as you continue to refine the search, it also adds items that bear the search term anywhere in the track's name, as well as artist and album names. For example, entering *DC* will get ACDC to appear in the list, while searching for *clas* will find "Classics," "The Clash," and "Story of the Clash."

## Useful but Tedious

The search feature could be a useful tool for people with large, disorganized iPod music libraries, but I found the process a little tedious. With a collection of organized

playlists, I could find my music more quickly the old-fashioned way. A more helpful new feature—Quick Scroll—causes a translucent-gray, alphanumeric overlay to appear on the screen when you're scrolling through a list of artists, albums, or songs. Just start scrolling and, within a second or so, the overlay appears, displaying the letter that corresponds to where you are in the list—*J* for Jack Johnson, James Brown, The Jayhawks, Joni Mitchell, and Joss Stone, for example. Though the initial delay in displaying the first character requires that you scroll back occasionally, the overlay feature is a very slick way to navigate through your music search.

## Other New Features

Unlike its predecessor, the 2G iPod nano allows you to record voice memos with a compatible accessory such as Belkin's \$70 TuneTalk and XtremeMac's \$60 Micro-Memo. Just like its larger sibling, the 5G iPod, you can record memos at low or high quality—mono WAV format at a sample rate of 22.05kHz and stereo WAV format at 44.1kHz, respectively. (See our review of the updated iPod on page 42.)

The new nano comes with Apple's new earbuds. Unlike previous Apple earbuds, these ones ship without foam covers. Issues of hygiene aside, I miss the foam covers because in my ears they help keep the earbuds in place. Without them, the earbuds tend to slide around in my ears to the point where I can't make them stick in the sweet spot that delivers the best sound. Thank-continues

# High-Definition that Rocks!



INTRODUCING THE NEW HD1A

**Video. Pictures. Editing.**

True High-Definition	Digital Stills	Zoom Lens	LCD Screen
<b>720p</b> Video	<b>5.1</b> Megapixel	<b>10x</b> Optical Zoom	<b>2.2"</b> 210,000 Pixels

[www.sanyodigital.com/61](http://www.sanyodigital.com/61)

# SANYO

©2006 SANYO Digital Products. All rights reserved. Screen images are simulated and do not represent actual picture quality.  
Subject to individual retailer availability.

fully, I have other earbuds that I prefer. I hope you do too.

The new nano has a change that I particularly like. The Center button is slightly concave rather than convex, as it was on many previous iPods, or flat, as it was on the original nano and on 5G iPods. This tiny divot makes it easier to locate that button by touch, allowing you to orient yourself to the iPod's controls without looking at the player.

### Longer Sync Time

A final difference worth noting is that the 2G iPod nano takes longer to sync than its predecessor did. I synced the same 3.52GB playlist to a 4GB 1G nano and a 4GB 2G nano, and it took the newer nano nearly 50 percent longer—9 minutes and 53 seconds for the older nano versus 14 minutes and 22 seconds for the newer model—to complete the sync on my dual-2GHz Power Mac G5.

### Better and Brighter

The two most impressive enhancements to the 2G nano are ones you may not notice at

first—its battery life and screen brightness. Apple says that the new iPod nano can play up to 24 hours of music on a single battery charge and that the display is 40 percent brighter than on the old nano. Neither statement is exaggerated.

To test battery life, I fully charged each nano, selected the first track in a playlist of AAC files encoded at bit rates of less than 180 Kbps and with sizes of less than 8MB per track, and pressed Play. Functions that drain the battery—specifically backlighting, EQ, and Sound Check—were turned off. The black 8GB iPod nano played for 26 hours and 45 minutes, a blue 4GB nano died at just over 26 hours and 26 minutes, and the 2GB nano took the battery-miser prize by playing nonstop for an impressive 28 hours and 7 minutes. Given these results, it appears that under normal use, a new nano should be able to pump out Apple's proclaimed 24 hours of music on a single charge.

As for the screen brightness, I don't have the tools necessary to determine if the 2G nano's screen is actually 40 percent brighter, but its display is distinctly brighter. Place an old and new nano side-

by-side, and pull up the same photo on each—the original nano's display looks positively dingy in comparison to its newer buddy. It's also brighter than the display on my older full-size 5G iPod.

### Macworld's Buying Advice

The 2G iPod nano is both a welcome step back to the more colorful (and scratch-resistant) days of the iPod mini and a moderate step forward in functionality. This middle-child iPod feels and looks great with its rugged aluminum finish and bright display. Apple has done nice things with power management to allow the nano to play for more than 24 hours on a single charge. And the ability to record high-quality voice memos and more easily search your portable music collection are nice enhancements—though you may find the click-a-letter search feature more trouble than it's worth. All in all, the 2G nano is a worthy successor to the original nano. (For a longer version of this review, see [macworld.com/1767](http://macworld.com/1767).) □

CHRISTOPHER BREEN is a senior editor at Macworld. He also writes the iPod blog for Playlistmag.com.

# The Best Full-Size iPod Yet

Fifth-Generation (Late 2006) Model Sports Improved Hardware and Software

BY DAN FRAKES

The new full-size iPod—officially known as Fifth Generation iPod (Late 2006)—is virtually identical to its original 5G predecessor on the outside—most of its changes are under the hood, in the form of software updates and improved hardware. But these improvements, including enhanced video support and additional multimedia features, make the latest iPod the best yet—and perhaps a harbinger of products to come.

### Lower Prices, Better Hardware

Like the original 5G iPod, the new one is available in two sizes: 30GB and 80GB (the latter up from 60GB). The 80GB model is great for people who use their iPod for storing video, have huge music collections, or listen to high bit-rate, lossless, or uncompressed music.

One of the most welcome hardware improvements is a brighter screen—60 percent brighter than that of the original 5G iPod, according to Apple. I don't have any way to measure the actual brightness of the newest model's screen, but a quick glance at the screen shows that it's clearly a step up. This change will be most welcome for using the iPod in bright sunlight and for watching dark video.

You can adjust the brightness level via an option in the iPod Settings menu. (This brightness level doesn't affect output to a TV.)

The other major hardware improvement in the new iPods is longer battery life. Although the actual sizes of the two models haven't changed—4.1 by 2.4 by 0.43 inches for the 30GB model and 4.1 by 2.4 by 0.55 inches for the 80GB model, the same as the previous 30GB and 60GB models, respectively—battery life has improved significantly.

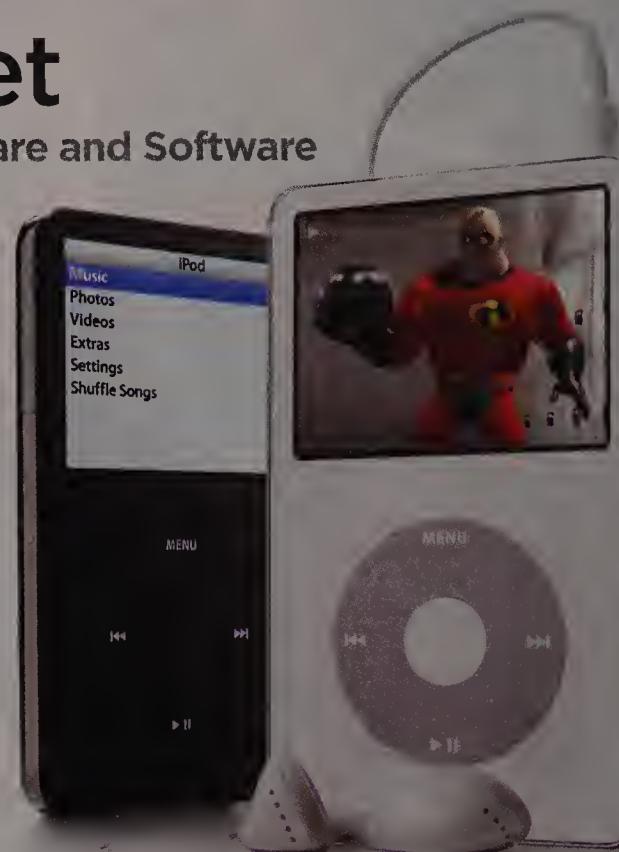
In my testing, the new iPods meet or surpass most of the assertions that Apple makes about their battery life; in some cases, they exceed these rates by well over two hours.

You can further extend (or reduce) battery life using the new iPod's brightness level. For example, with screen brightness at the lowest level, the new 80GB iPod was able to play 75 additional minutes of video, nearly 20 percent longer; with brightness increased to the maximum, video playback time was reduced by 1 hour and 48 minutes—a 28 percent decrease. You can change the screen's brightness while watching a video or slide show.

The new models are identical in size and external design to the previous models, so all accessories that fit the original 5G iPods will fit the new versions.

### Software Improvements

Apple has added many useful software features to the latest models: The most expected, given the addition of 640-by-480-pixel video to the iTunes Store, is support for that resolution on the iPod. The iPod's screen is still 320 by 240



pixels, but the iPod supports—and can output to a TV—640 by 480 pixels. Because the iPod's screen resolution hasn't changed, there isn't much difference on screen between the older and newer models in terms of image quality. But when you connect your iPod to a TV, the difference is more noticeable—and welcome.

Gapless playback, one of the most oft-requested features for both iTunes and iPods, has been added to the updated players and to iTunes 7 (see our review on page 74). Once iTunes has automatically determined which tracks in your Library are part of a gapless continues

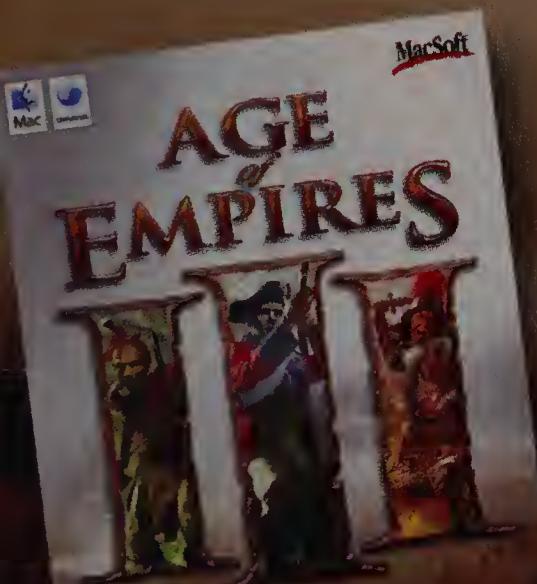


## THE DAWN OF A NEW AGE

### Experience the Epic Age of Discovery

Command one of eight mighty powers grappling to conquer the New World. Crush your enemies with devastating cannons, rifled infantry, and your naval fleet. Build a thriving empire with a booming economy. Form strategic alliances with Native Americans.

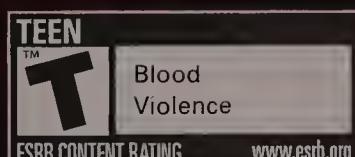
A new Age dawns on Macintosh in late October 2006.



MacSoft

"Visually stunning and brilliantly executed."  
-GameSpy

"Age of Empires III is a superbly balanced and polished game."  
-IGN



[www.macsoftgames.com](http://www.macsoftgames.com)

ENSEMBLE  
STUDIOS

Microsoft  
game studios



MacSoft

album, you can sync one of the latest iPods to iTunes to add that information to the player.

The other major new feature added to the full-size iPod is support for higher-quality games such as Zuma, Mini Golf, Vortex, and Texas Hold'em (which are available for purchase from the iTunes Store). Game graphics and playability vary, but these games are as good as—and sometimes much better than—the games available for many mobile phones, and are dramatically better than the iPod's built-in games. However, playing these games drains the iPod's battery *very* quickly—much more so than watching movies does.

### Easier Access to Content

Apple has also added two search features to make it easier to find your music and media.

#### **30GB FIFTH-GENERATION IPOD (LATE 2006)**

**RATING:**

**PROS:** Lower price than previous 5G iPod; brighter screen; improved video-related battery life; new game support; gapless playback; Quick Scroll and search features; slightly better headphones; all the features of the original 5G models.

**CONS:** Requires Internet connection to download necessary software; kludgy search feature; 30GB can fill up quickly if you store lots of video; games drain battery life rapidly.

**PRICE:** \$249

**COMPANY:** Apple Computer, [www.apple.com](http://www.apple.com)

As you begin to scroll through a list of items, a new Quick Scroll feature shows you a small, translucent overlay on the screen containing the first letter or character of the current section of items. When you get to the desired letter, lifting your finger from the Click Wheel, or pausing the scrolling movement, switches the iPod back to normal scrolling mode to allow you to choose a specific item. This welcome feature helps prevent overshooting while browsing long lists.

The second new feature is a search mode, which you access through the Search command at either the bottom of the Music screen or, if you've customized it, in the main menu. Choosing this item gets you to the Search screen where you use the scroll wheel to select letters on the screen. High-

light a letter, press the Center button, and the track list is whittled down to include just entries that begin with that letter. Continue dialing in letters to narrow your search; as you do, the search feature will also include items that *include* your search string.

Although the search mode can be useful, I found the feature to be somewhat kludgy; however, it's noteworthy because it's the first instance where users can actually *input* information via the iPod's own controls.

### Internet Access Required

Unlike previous iPods, the new ones don't include iTunes, the latest iPod software, or a manual in the box. Instead, Apple's Web site has a new iPod + iTunes page ([www.apple.com/ipod/start](http://www.apple.com/ipod/start)) that provides links for downloading the latest version of iTunes—which also now includes all iPod updaters as part of the application. And if you want full descriptions of the iPod's features, you need to download the new Features Guide from Apple's Web site.

### Better 'buds?

Like the original 5G iPod, the new version includes a thin sleeve case, a USB dock-connector cable, and a set of Apple's signature white earbuds. However, the latest iPods include a new and improved version of these earphones. Are the new earbuds really better than the previous ones? A bit. Listening to

#### **80GB FIFTH-GENERATION IPOD (LATE 2006)**

**RATING:**

**PROS:** Lower price and 33 percent more storage than previous 5G iPod; brighter screen; improved video-related battery life; new game support; gapless playback; Quick Scroll and search features; slightly better headphones; all the features of the original 5G models.

**CONS:** Requires Internet connection to download necessary software; kludgy search feature; games drain battery life rapidly.

**PRICE:** \$349

**COMPANY:** Apple Computer, [www.apple.com](http://www.apple.com)

## Your G5's Dream Date



### The 3ware Sidecar & Your Apple Power Mac G5: The Perfect Match

PCI  
EXPRESS

SERIAL  
ATA  
3Gb/s

The 3ware Sidecar by AMCC is a powerful SATA RAID desktop storage solution designed specifically for the Apple® Power Mac® G5 with PCI Express. At speeds 4-8x faster\* than Firewire or USB, it can store and protect tons of your photos, songs, videos, illustrations and web pages.

Whether you're editing and archiving digital photo shoots or snapshots, home movies or future Academy Award® winning films, garage jam sessions or professional mixes — rest assured your data will always be protected. The 3ware Sidecar is designed for creative professionals and enthusiasts who care about their data and just can't risk losing it! With the 3ware Sidecar, your data is RAID protected, so a failed drive won't mean the loss of hours of creative output.

On the set, in your studio or at the office, the 3ware Sidecar lets you think outside the box. And with up to 3TB\*\* of storage capacity, there's no need to worry about running out of space. Just install, set up and connect — it's as easy to use as 1-2-3.

3ware Sidecar, the perfect partner for your G5 workstation — no dinner required.



**AMCC**  
STORAGE

Think Outside the Box

Find out more at [www.3ware.com](http://www.3ware.com)

Or call (877) 88-3ware; 877-883-9273



**MacMall**

**macZONE**

**PROVANTAGE**  
[www.PROVANTAGE.com](http://www.PROVANTAGE.com)

AMCC and 3ware are registered trademarks of Applied Micro Circuits Corporation. All other trademarks are the property of their respective holders. Copyright © 2006 Applied Micro Circuits Corporation. All Rights Reserved.
\* SATA II: 300MB/second; Firewire: 80MB/s or 40MB/s; USB 2.0: 48MB/s
\*\* Using four 750MB SATA drives (not included)

Apple Lossless versions of high-quality recordings, I could hear slightly better bass performance and a tad bit better treble response, but these are very small improvements that most people are unlikely to detect, especially with compressed music.

On the other hand, the appearance and fit of the new earbuds are quite different than the previous ones. They're still white with gray trim, but instead of the stem-and-speaker design of the previous earbuds, the new ones adopt a sleeker and more curvy look. They're also slightly smaller and omit the foam covers of the old models in favor of a small rubber ring around the front of each earpiece.

#### Macworld's Buying Advice

Although the new iPod isn't the true video iPod many people were expecting, it's a solid upgrade from its predecessor. It offers useful new software features for watching video, playing games, and browsing content, as well as improved hardware upgrades such as a brighter screen, better battery life, and improved earbuds. You also get all of these refinements—and, in the case of the larger model, 20GB more storage space—for a lower price than the previous 5G iPods. Overall, these iPods are great products. (For a longer version of this review, see [macworld.com/1769](http://macworld.com/1769).) □

DAN FAKES is a senior editor at Macworld.

#### iMacs

continued from page 36

2GHz iMac Speedmark score, it beat the older iMac in several other tests.

The one area in which the 1.83GHz 17-inch iMac performed significantly worse was in our Unreal Tournament 2004 Frame Rate test. Because this model uses the Intel GMA 950 integrated graphics chip instead of a dedicated high-speed graphics chip, the low-end Mac could process only 21.7 frames per second—60 percent fewer than the old iMac, and 67 percent and 73 percent fewer than the other new iMac models. The integrated graphics also caused noticeable differences in Pangea Software's Nanosuar 2 (movement seemed less fluid), and opening and closing multiple Finder windows wasn't nearly as smooth as on the other Core 2 Duo iMacs. However, the 1.83GHz model was able to play HD movie trailers without dropping frames. The other two models have much better frame rates: 65.5 (2GHz) and 74.4 (2.16GHz). These beat the old 20-inch iMac's 54.1 score handily.

These three new iMacs were between 9 percent and 24 percent faster than the old 20-inch iMac in our Adobe Photoshop CS2 suite of tests, which runs in Rosetta because Photoshop isn't yet an Intel-native application. Even the 1.83GHz iMac shaved 14 seconds off the old model's time of 2 minutes and 31 seconds.

In general, there was very little difference between the 2GHz and 2.16GHz models in terms of hands-on feel—both responded quickly to most tasks. The \$999 iMac, however, definitely suffered from its slower processor and lesser amount of RAM: launching programs took a little longer and applying transitions in iMovie was slow, for example. And the greater screen brightness of the 20-inch model was noticeable.

#### Macworld's Buying Advice

The performance difference between the Core Duo and Core 2 Duo processors makes these upgrades basically speed bumps rather than completely new iMacs, but Apple does give you more Mac for less money. If you want a low-cost iMac to have around the house, the 1.83GHz iMac is a nice system for the price. It's an appealing computer for students, who can buy one for the same \$899 price as the education iMac.

But if you plan to use the iMac for gaming or graphics-intensive work, go for the faster 17-inch model. If you're looking for a bigger screen, the 20-inch model provides more than just additional pixels—it also performs on a par with the 24-inch iMac. (For a longer version of this review, see [macworld.com/2265](http://macworld.com/2265).) □

JONATHAN SEFF is Macworld's senior news editor.

# NO MORE CABLES.

APRICORN—WHERE INNOVATION IS BUILT-IN.

Here's to portability. To productivity. To integrated USB or FireWire® cables. To advanced backup, synchronization and encryption software. To holding anywhere from 30GB up to 160GB in a 1.8" or 2.5" drive. Here's to the Aegis family of portable drives. And to Apricorn. The company that helps you do more with less. Visit [www.apricorn.com/macworld](http://www.apricorn.com/macworld) or call 800-458-5448.

hard drive by HITACHI

APRICORN

# More Reviews

For complete reviews of the products listed here, visit [www.macworld.com/reviews](http://www.macworld.com/reviews).



## Winner of a 2006 Apple Design Award

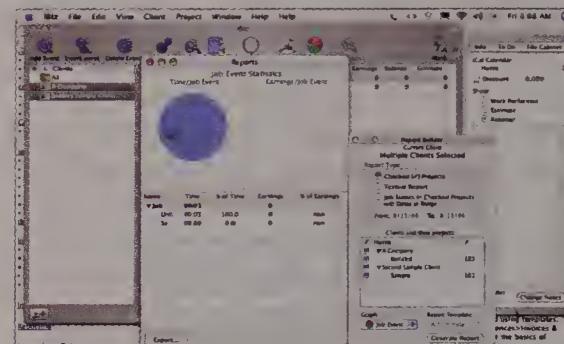


- Universal OS X native app
- Launches in under a second
- Powerful Bezier editing tools
- Boolean operations
- Expert typesetting
- Artistic strokes
- SVG for full document import/export

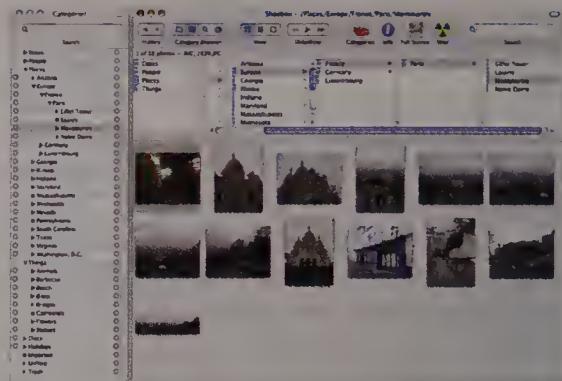
Perfect for Posters, Logos,  
CD Covers and more!

Try it now!

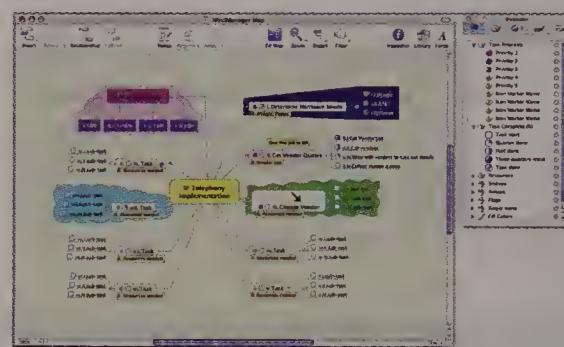
[FREEVERSE.COM](http://FREEVERSE.COM)



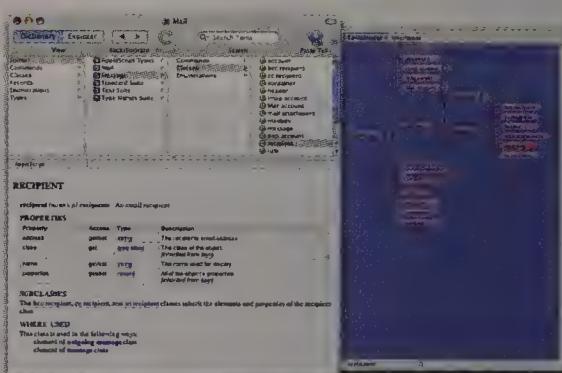
★★★★★ **iBiz 2.5** ▲ (\$30; upgrade, \$16), from IGG Software ([www.iggssoftware.com](http://www.iggssoftware.com)): iBiz 2.5.3 is a time-billing and invoicing application aimed at self-employed people and small businesses. It has a moderate learning curve, but it achieves what it sets out to do by putting projects, clients, and tasks in a logical order. iBiz's Mac-like interface provides integration with Apple's iCal and Address Book, and it allows you to create customized graphical and text-based reports ([macworld.com/2222](http://macworld.com/2222)).



strength is really unleashed when you start with a completely blank document and let the ideas roll out of your head and onto the page. While this initial Mac release lacks some of the features found in its Windows counterpart, the program is a strong addition to the existing slate of Mac brainstorming apps ([macworld.com/1778](http://macworld.com/1778)).



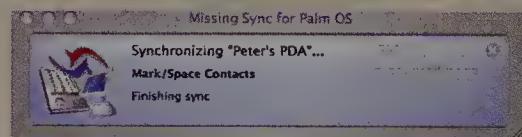
★★★★★ **MindManager 6.0 Mac** ▲ (\$229), from Mindjet ([www.mindjet.com](http://www.mindjet.com)): MindManager 6.0.4 offers an elegant user interface and excellent tools for brainstorming and mapping everything from major projects to simple school reports. MindManager ships with seven predefined templates for creating standard maps, such as organizational charts and to-do lists. But the program's



Windows Mobile 2.5.1 makes them work for your Mac, with features that go beyond just synchronizing phone numbers and calendar entries. Although we initially came across a few snags while syncing songs with iTunes, we were able to locate and fix our problems easily ([macworld.com/2225](http://macworld.com/2225)).

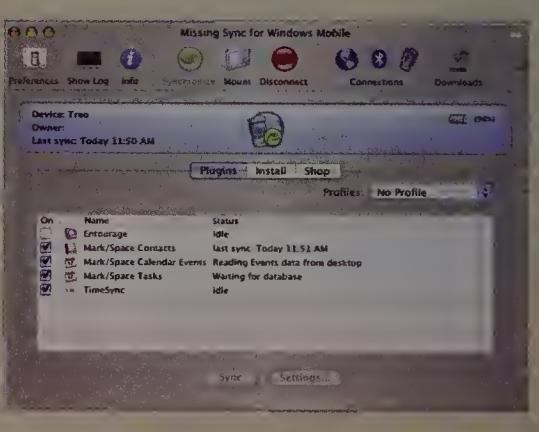
## MOBILE PHONES

### Smart Phone Syncing



★★★★½ **The Missing Sync for Palm OS 5.1** (\$40), from Mark/Space ([www.markspace.com](http://www.markspace.com)): The HotSync software included with Palm devices is slow and clunky, and it hasn't kept up-to-date with the Mac. Mark/Space has incorporated a slew of enhancements—including integration with Apple's iCal, Address Book, and iLife applications—in their venerable Missing Sync software to keep it current ([macworld.com/2246](http://macworld.com/2246)).

★★★★½ **The Missing Sync for Windows Mobile 2.5** (\$40), from Mark/Space ([www.markspace.com](http://www.markspace.com)): If you want the advanced features of a Windows Mobile-based smart phone, The Missing Sync for

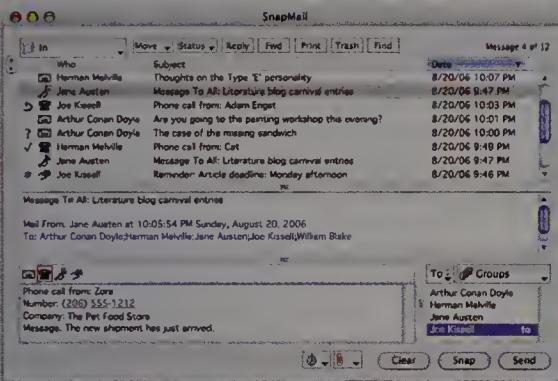


# MacMania™ 6

May 26th – June 2nd, 2007 • Alaska

[www.GeekCruises.com/MacMania\\_02](http://www.GeekCruises.com/MacMania_02)

**Shoebox Pro 1.6** ◀ (\$80; Express version, \$30), from Kavasoft ([www.kavasoft.com](http://www.kavasoft.com)): Shoebox Pro 1.6.1 is an excellent tool for cataloging large digital photo collections. It's a bit pricey, but intermediate photo fans who need a friendly way to catalog, search, and back up their images will find Shoebox invaluable. Novice shutterbugs who don't need Shoebox's sophisticated backup system will likely be happy with Apple's iPhoto ([macworld.com/2223](http://macworld.com/2223)).



**SnapMail 5.0** ▲ (\$18 to \$32 per user), from Glass Bead Software ([www.glassbead.com](http://www.glassbead.com)): SnapMail provides a simple way for an organization to implement a secure, no-frills, stand-alone, interoffice messaging system with file-transfer capabilities. But be prepared to use an entirely different system for communicating with people on the outside. And although SnapMail lets users set up remote access to their messages, it doesn't easily accommodate changing IP addresses, so it won't work well for travelers ([macworld.com/2221](http://macworld.com/2221)).



**VisiStat 4** ▲ (\$20 per month), from VisiStat ([www.visistat.com](http://www.visistat.com)): If you use a Web site to attract customers, sell products or services, or make money from advertising, then you need to know as much as possible about how people use your site so you can fine-tune it to meet their needs. How do users find your site? Which pages are the most (and the least) popular? At what times and on what days does your site see the most traffic? VisiStat, a Web-based service for assessing advanced Web analytics, can give you this kind of detailed information about user behavior on your Web site ([macworld.com/2220](http://macworld.com/2220)).

## Mac Power User Track

- Mac OS X: Ready for the Future?
- Mac OS X Power Tips
- Apple's Latest and Greatest
- OS X Leopard Sneak Peek for the Power User
- Introduction to Automator
- A UNIX Guide to OS X
- Installing and Managing PostgreSQL on Mac
- FileMaker Pro Out of the Box
- FileMaker 7 Databases and the Web

## Aperture Aura Track

- Intro to Aperture: From Capture to Output
- Advanced Aperture: Becoming a Power User
- Making Gorgeous Aperture Books
- Understanding and Using Versions
- Shooting and Editing Raw
- Publishing your Photos Using Aperture Web Galleries and Journals
- Light Table Secrets
- Integrate Aperture Into Your Existing Process
- Aperture and Automation
- Mac OS X: Perfect for Photographers

## The Conference

Cruise prices vary from \$1,299 for an Inside Stateroom to \$3,199 for a Full Suite, per person. (Cruise pricing is subject to change. Geek Cruises will generally match the cruise pricing offered at the Holland America website at the time of booking.) For those attending the conference, there is a \$795 fee. Taxes are \$66 per person.

CST# 2065380-40

Holland America Line

A Signature of Excellence



Checkout testimonials, weblogs, photos, videos, past seminars, and Cap'n Neil Bauman's "take" at [www.GeekCruises.com/Experience](http://www.GeekCruises.com/Experience)

© Reed Hoffman

CO-PRODUCED BY:

**Macworld**  
THE MAC PRODUCT EXPERTS

**geekcruises.com**  
EDUCATION THAT TAKES YOU PLACES



# Mac Gems

BY DAN FRAKES

GET MORE  
AND EXPANDED  
REVIEWS!

Go to [www.macworld.com/macgems](http://www.macworld.com/macgems).

## MAP OVERLAY TOOL

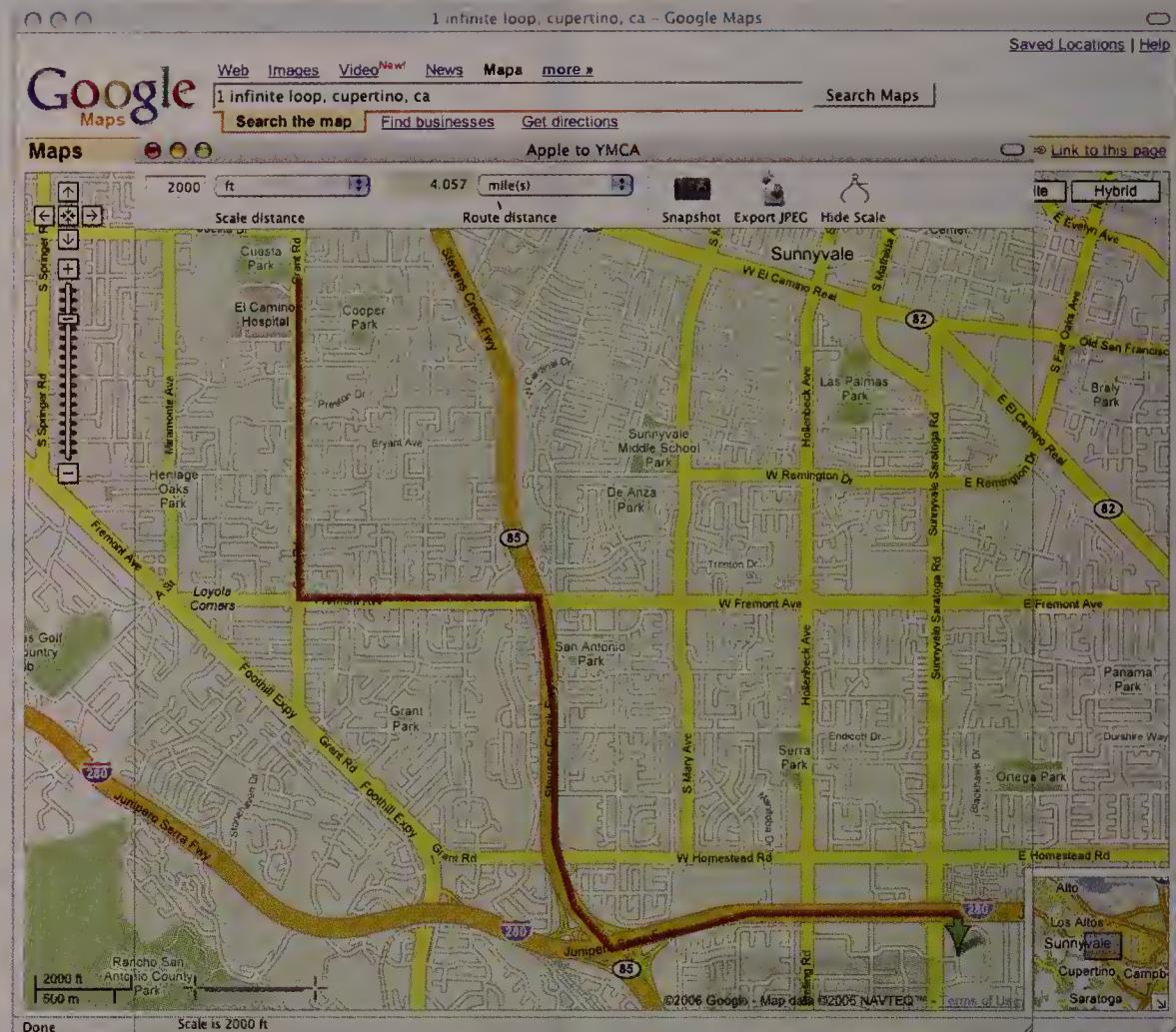
### Meander 1.2

If I'm going somewhere, or if I'm trying to help someone else get somewhere, I often use Google Maps or Yahoo Maps to create a map, take a screenshot of that map, and then use a graphics app to draw the route in a bright red line so it's easier to follow. Making these custom maps just got easier, thanks to Acutus Trading's Meander 1.2 (4.5; \$20; [meander.macpaq.com](http://meander.macpaq.com)). Meander provides you with a resizable, translucent window that you place over any map; you can then draw your route—using map points with lines between them—right over the map. This approach often gives you better results (for walking or biking, for example) than the car-centric directions you get from Yahoo and Google. You can move points around to fine-tune your route or to choose a completely different route, and when you're finished, you can take a snapshot of the map and route together and then print it, export it as a JPEG image, or save it to your Meander Library for future reference.

Meander also has features that go beyond simple line drawing. For example, if you input the underlying map's scale, Meander can tell you the total distance of your route. To do this, you position Meander's scale bar over the map's and then adjust Meander's bar to fit. And if you later decide to zoom in on or out from the original map, you can easily change the zoom level of Meander's overlay to match without having to redraw your route (although you'll have to recalibrate the scale). Unfortunately, when exporting a map to a JPEG, Meander doesn't include the distance figure.

You can also customize Meander's appearance, including the type, color, and thickness of route lines and the overlay's transparency and color.

Of course, Meander isn't limited to maps on Web sites; you can use it with anything you can display in a window on screen. And assuming you know the scale, you can also use it to find the actual size of an object in an image or drawing; for example, if you have an on-screen illustra-



**Map-Meister** With Meander, you can create your own maps and figure out distance, all in one shot.

tion of a house, with the scale provided, Meander can quickly approximate the dimensions of any part of that house.

Despite its unique functionality, the current version of Meander does feel a bit like a work in progress. For example, Meander provides a Library feature that lets you save routes for later use and organize saved maps and routes into categories; however, using this Library can be confusing. And the Help system is sometimes inaccurate.

Meander is also missing some features that would be very useful in this type of utility. For example, I'd like to be able to nudge both the entire window and individual route points, using the arrow keys to fine-tune my routes. I'd also like to be able to link several points with a smooth curve or a straight line, to draw freehand instead of using points, to add text markings (say, "Look for the gas station on the right"), to join multiple maps easily (for example, when the complete route takes up several screens), and to determine the distance for individual segments of the route.

Still, I've been enjoying Meander and have used it several times to send maps to friends. I'm looking forward to future updates that incorporate more features.

## MUSIC SLEEP TIMER

### iTunesShut 4.4.2

Have you ever wanted to listen to a few songs in iTunes as you're going to sleep? You could create a new playlist with the appropriate number of tracks and just let it play out, but doing that on a regular basis would be a hassle. And what if you want to shut down your Mac or put it to sleep afterwards? I suppose you could coordinate your playlist with OS X's Energy Saver preference pane, but that would be even more work.

I've recently been using GuguSoft's iTunesShut 4.4.2 (4.5; free; [macworld.com/1647](http://macworld.com/1647)), which offers a simple but effective solution: enter the number of songs

continues

# SONGS IN THE KEY OF FREE



**emusic**

Nº 1 Site for Independent Music

Detach download card.

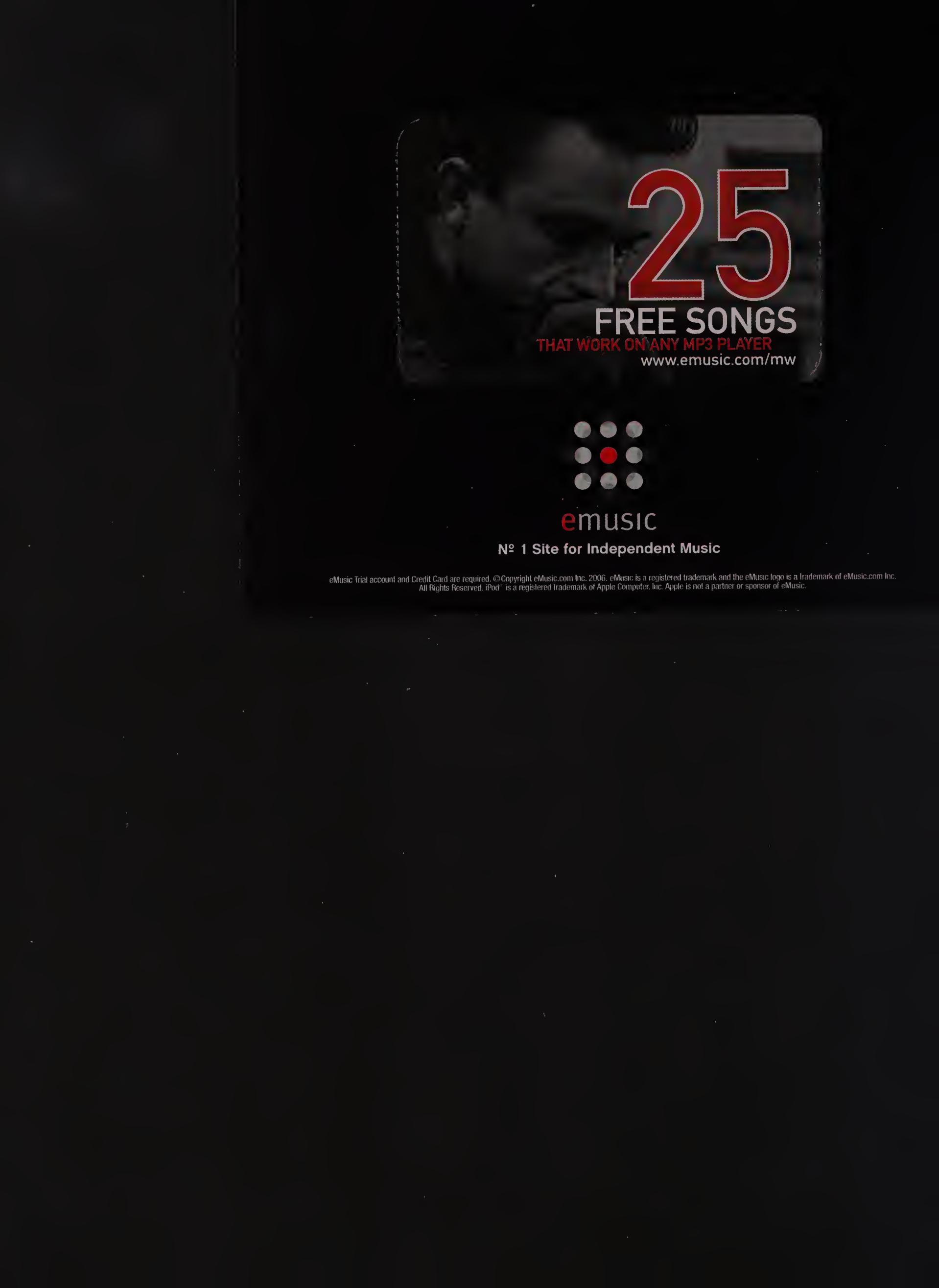
# 25

## FREE SONGS

that work on any MP3 player including the iPod.®



[EMUSIC.COM/MW](http://EMUSIC.COM/MW)



**25**  
**FREE SONGS**  
THAT WORK ON ANY MP3 PLAYER  
[www.emusic.com/mw](http://www.emusic.com/mw)



**emusic**

Nº 1 Site for Independent Music

eMusic Trial account and Credit Card are required. ©Copyright eMusic.com Inc. 2006. eMusic is a registered trademark and the eMusic logo is a trademark of eMusic.com Inc. All Rights Reserved. iPod® is a registered trademark of Apple Computer, Inc. Apple is not a partner or sponsor of eMusic.

# MACWORLD PICKS OUT THE SONGS. EMUSIC PICKS UP THE TAB.

DOWNLOAD **25 FREE SONGS** AT [EMUSIC.COM/MACWORLDPICKS](http://emusic.com/macworldpicks)

You'll find them in underground clubs, dusty bins of vinyl and right here on this page. They're the 25 greatest songs from eMusic's indie catalogue as selected by the editors of Macworld. All free. All ready to download at [emusic.com/macworldpicks](http://emusic.com/macworldpicks). From indie pop to bebop to country to hip-hop, they're yours to listen to over and over and over again. Why should you take our advice? Well, we do cover the iPod® better than anyone. But if not all these gems spin your dials, feel free to pick any 25 songs of your choosing from the vast eMusic catalogue. And every song works on every mp3 player, including the iPod®.



1. Black Label Society  
*Been A Long Time*



8. Albert King  
*Crosscut Saw*



17. Matthew Sweet  
*You're Not Sorry*



2. Dropkick Murphys  
*The Gauntlet*



9. Belle and Sebastian  
*Another Sunny Day*



18. Neil Finn  
*Driving Me Mad*



3. Warren Zevon  
*Keep Me In Your Heart*



10. BT  
*Satellite*



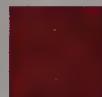
19. Pernice Brothers  
*Saddest Quo*



4. Sam Cooke  
*That's All I Need To Know*



11. Charlie Hunter & Booby Previte  
*All Hell Break Loose*



20. Rocky Votolato  
*Suicide Medicine*



5. Madeleine Peyroux  
*J'ai Deux Amours*



12. Destroyer  
*Painter In Your Pocket*



21. The Kinks  
*Come Dancing*



6. Dead Kennedys  
*Holiday In Cambodia*



13. Johnny Cash  
*Big River*



22. The Pixies  
*Winterlong*



7. The White Stripes  
*Why Can't You Be Nicer To Me*



14. Jon Langford  
*Nashville Radio*



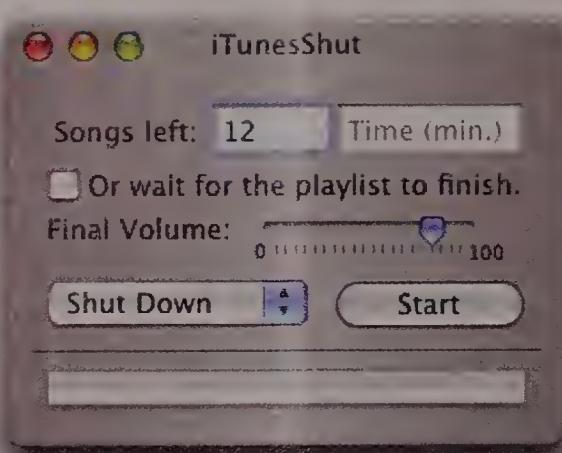
23. They Might Be Giants  
*Man, It's So Loud In Here*



**emusic.**

Nº 1 Site for Independent Music

# Macworld



**Digital Sandman** iTunesShut helps iTunes and your Mac lull you to sleep.

you want to play, choose an action to occur after those tracks finish (Shut Down, Restart, Sleep, Pause iTunes, or Quit iTunes), and then click on the Start button. After the designated number of tracks finishes playing, iTunesShut performs the chosen action. iTunesShut also updates its Songs Left box during playback and displays the time remaining, to let you know how many tracks and how much time remain before the action occurs. (Note that the current song doesn't count; if you enter 5, the count starts with the next song. This also means if you want the action to occur immediately after the current song, you should enter 0.) If you prefer to finish the current playlist instead of choosing a number of songs, the Or Wait For The Playlist To Finish option will do just that. Or you can choose to have iTunes play for a set amount of time—say, 30 minutes—before iTunesShut performs the desired action.

iTunesShut doesn't affect iTunes' playback settings; whatever playback mode you've chosen in iTunes still applies. So, for example, if you want to play the same track ten times and then pause iTunes, just set iTunes to Repeat One and set iTunesShut to 10 songs and Pause iTunes.

You can also have iTunesShut gradually reduce iTunes' playback volume—a unique but welcome feature in a sleep timer—using the Final Volume slider; just select the percent of maximum volume (from 0 to 100) you want iTunes to end up at, and iTunesShut will calculate how much it should lower iTunes' volume after each track. There are other utilities similar to iTunesShut, but it's my current favorite.

## WINDOW TOOL

### MondoMouse 1.1

Despite all the niceties of OS X's windows, many users lament the fact that you

can resize a window only via its lower right corner, or that you can move a window only by grabbing the title bar or the brushed-metal window border (assuming the latter is enabled) with the cursor. If you share these frustrations, Atomic Bird's MondoMouse 1.1 ([\\$15](#); [www.atomicbird.com](#)) is for you. This OS X preference pane gives your cursor capabilities it never had before—it lets you move, resize, or identify windows without having to first switch to them and then click on particular areas.

After installing MondoMouse, you choose keyboard modifiers for each mode, and MondoMouse's new modes immediately become available. Move Window mode lets you move a window by pointing to any part of it, pressing

your chosen keyboard modifier(s), and then dragging the window—even if the cursor is pointing to open white space in the middle of it and it's behind another window. (OS X does let you move a window in the background by holding down the  $\text{⌘}$  key while dragging the window's title bar, but MondoMouse lets you grab any part of the window.)

Resize Window mode works similarly, except that instead of moving the window, you're resizing the window in the direction(s) in which you move the mouse. This feature is useful for resizing windows hidden behind other windows, and it comes in handy when a window's right or bottom edge extends off the screen, making the resize tab continues

## Image-Resizing Utilities

In my everyday work, resizing images is a common task. Specifically, I need a tool that lets me resize an image based on its long side (see "Resize Them All"). Although many graphics applications can perform this task, many are overkill if all you want to do is resize a folder full of images. I've been looking for a quick, easy, and inexpensive solution, and I recently found several free ones. (See [macworld.com/2239](#) for a longer version of this comparison.) These apps work only with JPEG images.

The first is **KStudio's Resize 1.4.2** ([\\$15](#); payment requested; [kstudio.net](#)), which can also convert other formats to JPEG. Drag a folder of JPEG images onto Resize's icon in the Dock or Finder (or into Resize's window if the application is already running), and a dialog box pops up with options for resizing the images in that folder. You choose the size and proportionality of the resize action, and you can even choose the desired height and width, whereas many apps let you choose only one or the other. One glitch I encountered was an odd error message whenever I accessed Resize's Help system.

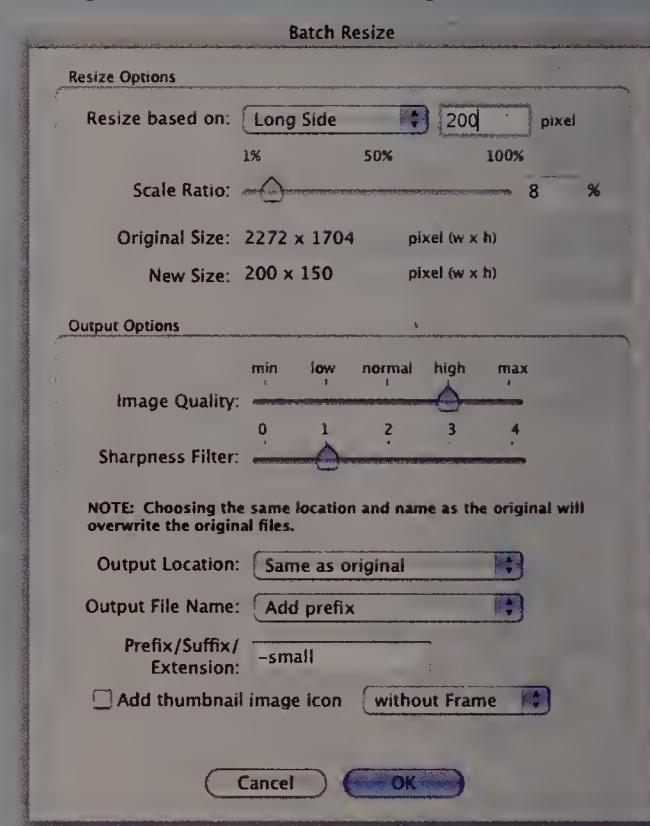
More powerful but harder to use is **Fabien Conus's SmallImage 2.0.6** ([\\$15](#); [free](#); [macworld.com/1743](#)). You drag a folder—or multiple folders—of images onto Small-Image's icon or into its window; you'll then see a listing of the folder(s) and the enclosed images. One advantage of the list approach is that you can selectively remove images from the list to avoid altering them.

Fans of contextual menus will enjoy

### Pixture Studio's PhotoToolCM

**2.0** ([\\$15](#); [free](#); [www.pixture.com](#)). You don't need a separate application to access PhotoToolCM's features; right- or control-click on an image or a group of images in the Finder to bring up its contextual menu. The PhotoTool submenu provides several options, including Batch Resize. PhotoToolCM has the most features of the products I've covered here. But it doesn't work on Intel Macs.

What's the quality of the resized images these utilities produce? I resized the same screenshot using each app. SmallImage's result was very grainy, even when I chose the highest-quality output. Resize and PhotoToolCM produced better results, with PhotoToolCM's sharpness filter offering slightly better text readability (although the image still had a bit of graininess).



**Resize Them All** PhotoToolCM lets you quickly resize photos via a contextual window.



## We gave them the new Nikon® D80.™ What they gave back was stunning.

They shoot for photo sites like Flickr.™ They shoot for family photo albums. They shoot because they're passionate about taking pictures. What did they capture with the new 10.2 megapixel Nikon D80? See the jaw-dropping highlights at [stunningnikon.com/dslr](http://stunningnikon.com/dslr)



inaccessible—instead of first moving the window fully onto the screen and then using the resize tab, you can resize the window in place. Unfortunately, you can't resize all windows this way; the feature doesn't work with applications that use—in Atomic Bird's words—"old-fashioned" Mac window management, such as Microsoft Office applications, Adobe CS applications, and Bare Bones Software's BBEdit.

MondoMouse also offers a nifty Display Information mode, which brings up a floating window label whenever you point to any part of a window. This is useful when you're looking for a particular window hidden behind a pile of others; as long as any part of a window is visible, MondoMouse can identify it.

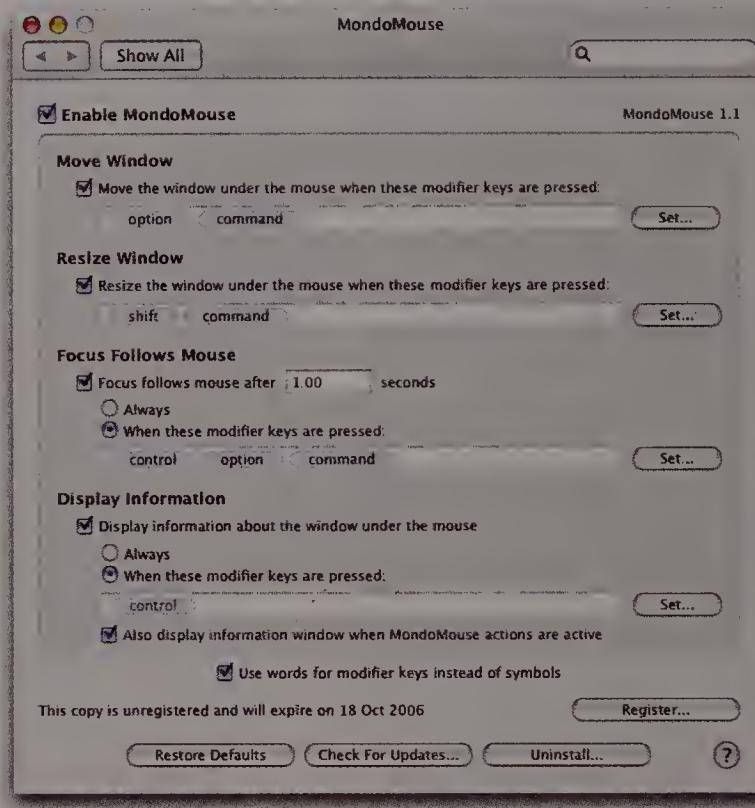
Finally, fans of "cursor focusing"—a popular option in some Unix variants—will like MondoMouse's Focus Follows Mouse mode. This feature lets you switch to any window by moving the cursor over it (while holding down the appropriate keyboard modifiers, of course). You choose the delay in seconds (or fractions of a second) before the switch occurs. As with Display Information mode, you can make Focus Follows Mouse mode perpetually active; so, for example, you can set MondoMouse to switch automatically to any window after you've been pointing to it for longer than 1.5 seconds.

One minor complaint I have about MondoMouse is that its floating window labels pop up immediately when you press one of its keyboard modifiers. If you've assigned keys that existing functions also use—for example, the control key, used for control-clicking in OS X—these window labels can at times be intrusive and undesired; I wish each of MondoMouse's modes offered its own user-defined delay before kicking in. I also experienced a minor glitch: a couple of times, MondoMouse's floating window label stayed on the screen even after I released the assigned modifier keys. And because MondoMouse's modes dramatically change the mousing behavior most Mac users are accustomed to, MondoMouse will take some getting used to. But the program offers several unique mousing options that many Mac users will find beneficial.

## BROWSER TAB SAVER

# ForgetMeNot 2.0

Tabbed browsing—which lets you open multiple Web sites in a single browser window—is a handy feature. It's been available in some Web browsers since as far back as the mid-1990s, and Safari finally added it in 2003. However, tabbed browsing introduces a potential drawback not found in one-page-per-window browsers: the risk of accidentally closing a window with multiple tabs when you really just wanted to close a particular tab—or of accidentally quitting the browser when you meant simply to close a tab or window. If you close ten Web sites that are open in a single Safari window, there's no way—short of rack-



**Window Finder** Move, resize, and identify windows easily with MondoMouse.

ing your brain or weeding through your browser's history—of getting them back.

Many browsers include features that prevent such a scenario. For example, some automatically save open tabs when you quit; some just warn you before closing a window with multiple tabs. Unfortunately, with Safari, when you close it, you lose it.

Previously, I reviewed Taboo (3½; *Mac Gems*, [macworld.com/1744](http://macworld.com/1744)), a Smart InputManager Bundle Loader (SIMBL) plug-in that modifies Apple's browser so that whenever you try to close a Safari window or quit Safari with multiple tabs open, a dialog-box warning pops up. But Jim Fowler's ForgetMeNot 2.0 (3½; free; [macworld.com/1742](http://macworld.com/1742)) does Taboo one better. Also a SIMBL plug-in (you need to install the included SIMBL package if this

is your first time using it), ForgetMeNot actually remembers the tabs in a window: If you quit Safari with multiple tabs open, the next time you launch Safari, ForgetMeNot will automatically restore those tabs. And if you quit Safari with multiple windows open, each with multiple tabs, the next time you launch Safari, ForgetMeNot will reopen each window, restoring each window's tabs as well.

What if you accidentally *close* a window with multiple tabs? ForgetMeNot adds an Unclose Window item to Safari's File menu—choosing this item opens a new window and restores all the tabs in the window you just closed.

Unfortunately, ForgetMeNot can't save you from Safari crashes—if Safari goes down, then the next time you launch it,

ForgetMeNot loads the tabs you had open the last time you closed a Safari window or quit Safari normally. The developer is working on two more improvements: the first is providing a way to *prevent* ForgetMeNot from remembering tabs—for example, when you really do want to close a window with multiple tabs; the second is fixing a bug (when you click on a Web link in another application, ForgetMeNot opens Safari and restores previously saved tabs, but it won't open the new link).

Finally, I have the same complaint about ForgetMeNot's installer that I had about Taboo's installer. The SIMBL system, which many Safari plug-ins use, works via OS X's InputManager system. This means that you should be able to install SIMBL and its plug-ins in either /Library (which would make its functionality available to all users on your Mac) or *your user folder*/Library (which would restrict it to your own account). However, the ForgetMeNot installer package doesn't give you this choice—it simply installs the software in /Library. I prefer having the option to restrict certain items to individual user accounts.

You could get functionality similar to what ForgetMeNot provides by switching to a browser such as Mozilla Camino or Firefox, but some users prefer Safari—and for those people, ForgetMeNot is a welcome add-on. □

DAN FRAKES is a senior editor at *Macworld* and the senior reviews editor at *Playlistmag.com*. Send your thoughts on this column, or on things you'd like to see in future columns, to [macgems@macworld.com](mailto:macgems@macworld.com).



[stunningnikon.com/joe](http://stunningnikon.com/joe)



[stunningnikon.com/timothy](http://stunningnikon.com/timothy)

If photography is your passion, the stunning new Nikon® D80™ is your Digital SLR.

The Nikon D80 is here. With a 10.2 megapixel Nikon DX format image sensor and a new high-resolution image processing engine, the Nikon D80 offers unprecedented sharpness and color in a Digital SLR at this level. Add an instant 0.18 sec start-up with a fast 80ms shutter response and the ability to shoot up to 2,700 images per battery charge, and you've got a Digital SLR that's uniquely suited to the needs of the passionate shooter. The Nikon D80, available with an astonishing 18-135mm 7.5x Zoom-AF Nikkor® lens for just \$1299.95.\* Further proof that there are Digital SLRs and then there are Nikon Digital SLRs. For more, go to [stunningnikon.com/dslr](http://stunningnikon.com/dslr)



\*Estimated selling price.

Nikon is proud to be a part of the **flickr** photo community.

*At the heart of the image*

# The fastest way to learn a language. Guaranteed.<sup>TM</sup>

Finally, a different approach that has millions of people talking. Using the award-winning Dynamic Immersion<sup>TM</sup> method, our interactive software teaches without translation, memorization or grammar drills. Combining thousands of real-life images and the voices of native speakers in a step-by-step immersion process, our programs successfully replicate the experience of learning your first language. Guaranteed to teach faster and easier than any other language product or your money back. No questions asked.

French  
German  
Chinese  
English  
(US or UK)

Italian  
Tagalog  
Russian  
Spanish  
(Latin America or Spain)

Japanese  
Vietnamese  
Indonesian  
Portuguese

Farsi  
Thai  
Korean  
Hindi

Greek  
Arabic  
Hebrew  
Turkish

Danish  
Swahili  
Polish  
Welsh

Dutch  
Latin  
Pashto  
Swedish

**Award-winning software successfully used by U.S. State Department diplomats, Fortune 500® executives and millions of people worldwide.**

Step-by-step immersion instruction in all key language skills:



**Listening** - Rosetta Stone uses native speakers and everyday language to develop your understanding of the spoken language naturally and easily.



**Reading** - Text exercises develop your reading skills by linking written language to real-life objects, actions and ideas.



**Speaking** - Speech-recognition feature records, diagrams and compares your voice to the native speaker's, grading your pronunciation.



**Writing** - Practice writing the language you are learning with the program to guide you. Simply write what you hear, then the program carefully checks your work and lets you correct any mistakes.

"...your program is the absolute best, bar none. I am shocked at how quickly I learn."

- Michael Murphy  
Texas, USA

"Stupendous...the juxtaposition of text, sound and picture was masterful. The quality of both sound and graphics was first rate."

- The Boston Globe

**Each fully interactive course includes:**

- CD-ROM curriculum with 20 activities in each of 92 lessons
- Previews, comprehensive exercises and testing for each lesson
- Automated tutorials that "learn" where you need extra help
- Curriculum Text and 45-page User's Guide

More Ways to Say  
**HAPPY HOLIDAYS!**



**SAVE  
10%**

**A GREAT GIFT IDEA!**

Level 1 Program  
Regularly \$195.00

Level 2 Program  
Regularly \$225.00

Level 1 & 2  
Regularly \$329.00



Your Price  
**\$175.50**



Your Price  
**\$202.50**



Your Price  
**\$296.10**

Personal Edition. Solutions for organizations also available.

Call today or buy online for a 10% discount.

**RosettaStone.com/ozs126**

**1-800-399-6162**

Use promotional code ozs126 when ordering.

**RosettaStone®**  
Language Learning Success

SPECIAL EDITION:  
**Best Products  
of the Year!**

# Top Products

YOUR GUIDE TO THE BEST HARDWARE WE'VE TESTED

SEE MORE  
HARDWARE  
REVIEWS!

Go to [www.macworld.com/reviews](http://www.macworld.com/reviews).

## On Top of the Hardware World

Every month, *Top Products* presents the highest-rated hardware that *Macworld* has reviewed. When a new product becomes available and emerges as the best new hardware in its class, we replace the former Top Product with the new, better one.

For this month's *Top Products*, we've culled the past year's top performers and are providing you with an expanded list of the best products in each category. We've listed buying advice for each product, and we've added our current additional recommendations. If you're in the market for a particular kind of product, you should put these top performers on your list of possible choices.

A few of these hardware products were first released in 2005 but have yet to be knocked off their pedestals by newcomers. They're still being sold and they're still leading the pack. □

### GENERAL INK-JET PRINTERS

★★★★½ **Deskjet 5940** (\$100), from Hewlett-Packard ([www.hp.com](http://www.hp.com)):

The HP Deskjet 5940 is a good general ink-jet that will print cleaner text more economically than a photo printer and produce better photographs than a color laser printer. And this printer costs much less than either of those other printers ([macworld.com/1012](http://macworld.com/1012)).

#### ALSO RECOMMENDED:

★★★★½ **Officejet Pro K550** (\$200), from Hewlett-Packard ([www.hp.com](http://www.hp.com)):

This printer costs more than most four-color general

ink-jets, but it holds more paper and prints more pages than most ink-jets. It's fast, and it does a respectable job of printing photos, as well as charts and graphs ([macworld.com/1257](http://macworld.com/1257)).

**BUYING ADVICE** Ink-jet printers can surprise you with their quality. They're usually inexpensive but often slow to print. Ink-jets are very popular, and there are a lot of them vying for your attention. When shopping for an ink-jet, pay close attention to how much replacement ink costs, be skeptical of vendors' print-speed assertions, and compare sample pages carefully before deciding.

### MULTIFUNCTION PRINTER

★★★★½ **AcuLaser CX11NF** (\$800), from Epson ([www.epson.com](http://www.epson.com)):

The AcuLaser has it all: a color laser printer, a sheet-fed scanner, a copier with networking capabilities, and a fax machine ([macworld.com/1669](http://macworld.com/1669)).

**BUYING ADVICE**

Multifunction printers endeavor to do it all, but sometimes they don't do it all very well. Before buying one, make sure that it has decent printing, scanning, and faxing capabilities; that it is network-capable; and that its software is Mac-compatible.



### DUAL-LAYER DVD BURNERS

★★★★½ **d2 DVD±RW with LightScribe** (\$189), from LaCie ([www.lacie.com](http://www.lacie.com)):

Whether you're looking to add DVD-burning capability to your system, looking for an easier way to copy optical media, or just want the latest and fastest drives for burning DVDs—even dual-layer DVDs—the LaCie d2 can quickly and easily handle all of that and more ([macworld.com/2263](http://macworld.com/2263)).

#### ALSO RECOMMENDED:

★★★★½ **PX-716UF DVD±R/RW** (\$239), from Plextor ([www.plextor.com](http://www.plextor.com)); [macworld.com/0313](http://macworld.com/0313)

This drive performs well but is relatively expensive.

### COLOR LASER PRINTERS

★★★★½ **C6100dn**

(\$1,102), from Oki Data ([www.okidata.com](http://www.okidata.com)):

The Oki C6100dn works very well for small and midsize workgroups. It produces great-looking prints, and it has built-in duplexing, easy network connectivity, and quick printing speeds. The C6100dn prints photographs especially well, so it would be perfect for printing color brochures. However, excellence comes at a price ([macworld.com/1670](http://macworld.com/1670)).



#### ALSO RECOMMENDED:

★★★★½ **Magicolor 2430 DL** (\$499), from Konica Minolta ([www.konicaminolta.com](http://www.konicaminolta.com)):

At less than half the price of the Oki C6100dn, the Magicolor 2430 DL is a network-ready, color laser printer that provides accurate color prints. It's a great buy for a home office, or for a small workgroup that doesn't require PostScript printing. But if you have sensitive ears, beware: it's noisy and makes a chugging sound that can shake the table it rests on ([macworld.com/0635](http://macworld.com/0635)).



**BUYING ADVICE** Color laser printers are usually speedy and produce high-quality prints, but to get good results, you'll have to spend a good deal of money—they can be pricey. They're particularly well suited for workgroups and graphics pros. When shopping for a color laser printer, you should try the printer out at a store before buying it. You're investing a lot of money in this machine, so kick those tires.



**BUYING ADVICE** DVD burners can be real time-savers, and dual-layer features can help you get more data onto one disc, so you don't have to span projects across—or back them up to—two different discs.

>>

## MINIDV CAMCORDERS

**★★★★½** PV-GS500 (\$1,000), from Panasonic ([www.panasonic.com](http://www.panasonic.com)):

The PV-GS500 offers great control, excellent video quality, and broad operational flexibility. It's at the high end of the feature scale, but it's moderately priced for what it delivers ([macworld.com/1673](http://macworld.com/1673)).

### ALSO RECOMMENDED:

**★★★★½** PV-GS300 (\$700), from Panasonic ([www.panasonic.com](http://www.panasonic.com)); [macworld.com/1773](http://macworld.com/1773)

This camera is a quality alternative to the PV-GS500.



### BUYING ADVICE

The MiniDV format can be convenient for editing raw video to create a polished movie. MiniDV camcorders support nice features, such as large image sensors and optical image stabilization.

## INK-JET PHOTO PRINTER

**★★★★½** Stylus Photo R340 (\$200), from Epson ([www.epson.com](http://www.epson.com)):

The R340 is the best photo printer in its class. Its color photo prints are great, and it reproduces impressive shadow detail. This printer can print brilliant color photos directly, without the help of your computer. Its ability to print on CDs and DVDs extends its usefulness—and its nice, big LCD sweetens the deal ([macworld.com/0948](http://macworld.com/0948)).



### ALSO RECOMMENDED:

**★★★★½** Pixma iP6600D (\$200), from Canon ([www.canon.com](http://www.canon.com)); [macworld.com/0950](http://macworld.com/0950)

**★★★★½** Photosmart 8250 (\$199), from Hewlett-Packard ([www.hp.com](http://www.hp.com)); [macworld.com/0773](http://macworld.com/0773)

**BUYING ADVICE** Ink-jet photo printers are straightforward in what they claim to do. The main thing they should consider is print quality. Nice-to-have features include borderless photo printing, computerless printing, and large LCD screens. Pay special attention to ink and paper costs before buying one of these printers.

## ADVANCED DIGITAL CAMERA

**★★★★½** Lumix DMC-FZ30K (\$700), from Panasonic ([www.panasonic.com](http://www.panasonic.com)):

The Lumix DMC-FZ30K feels like an SLR, but its chunky body may be a blessing for people with large hands, who often find smaller cameras uncomfortable ([macworld.com/1157](http://macworld.com/1157)).



**BUYING ADVICE** If SLR cameras intimidate you, an advanced digital camera may be more to your liking. One welcome trend with these cameras is that the LCDs keep getting larger and prettier.

## DIGITAL SLR CAMERAS

**★★★★½** EOS Digital Rebel

XT (\$899; with lens, \$999), from Canon ([www.canonusa.com](http://www.canonusa.com)):



Canon defined this market with the original Digital Rebel, and the company keeps its lead with the EOS Digital Rebel XT. Its feature set, image quality, and price make it the best choice in the sub-\$1,000 digital-SLR market ([macworld.com/0535](http://macworld.com/0535)).

### ALSO RECOMMENDED:

**★★★★½** D200 (\$1,700), from Nikon ([www.nikon.com](http://www.nikon.com)); [macworld.com/0916](http://macworld.com/0916)

**★★★★½** EOS 30D (\$1,399), from Canon ([www.canonusa.com](http://www.canonusa.com)); [macworld.com/1297](http://macworld.com/1297)

**BUYING ADVICE** New vendors have been entering the digital SLR market, and prices keep dropping, even as the technology improves. If you're in the market for an SLR, you'll want to consider your lens options—especially if you already have a collection of lenses you'd like to continue using.

## POINT-AND-SHOOT CAMERA

**★★★★½** FinePix E900 (\$410), from Fujifilm ([www.fujifilm.com](http://www.fujifilm.com)):

This camera is for people who want simplicity and the ability to take control when desired ([macworld.com/1523](http://macworld.com/1523)).



**BUYING ADVICE** Purchasing a point-and-shoot camera is tough because there are so many cameras to choose from. Keep your focus on the specific features you absolutely want when considering your many options.

## MACS

### DESKTOP

Product	Processor	Display	Rating	More Information	Best Price <sup>A</sup>	Speedmark 4.5 Score <sup>B</sup>
iMac	Intel Core 2 Duo/1.83GHz	17 inches	<b>★★★★½</b>	<a href="http://macworld.com/1727">macworld.com/1727</a>	\$967	202
	Intel Core 2 Duo/2GHz	17 inches	<b>★★★★½</b>	<a href="http://macworld.com/1728">macworld.com/1728</a>	\$1,160	232
	Intel Core 2 Duo/2.16GHz	20 inches	<b>★★★★½</b>	<a href="http://macworld.com/1729">macworld.com/1729</a>	\$1,452	245
	Intel Core 2 Duo/2.16GHz	24 inches	<b>★★★★½</b>	<a href="http://macworld.com/1730">macworld.com/1730</a>	\$1,934	245
Mac mini	Intel Core Duo/1.66GHz	not included	<b>★★★★½</b>	<a href="http://macworld.com/1731">macworld.com/1731</a>	\$569	152
	Intel Core Duo/1.83GHz	not included	<b>★★★★½</b>	<a href="http://macworld.com/1732">macworld.com/1732</a>	\$773	165
Mac Pro	Intel Xeon/two dual-core 2.66GHz	not included	<b>★★★★½</b>	<a href="http://macworld.com/1646">macworld.com/1646</a>	\$2,347	299

### PORTABLE

MacBook	Intel Core Duo/1.83GHz	13 inches	<b>★★★★½</b>	<a href="http://macworld.com/1449">macworld.com/1449</a>	\$1,064	154
	Intel Core Duo/2GHz	13 inches	<b>★★★★½</b>	<a href="http://macworld.com/1450">macworld.com/1450</a>	\$1,258	161
	Intel Core Duo/2GHz (black)	13 inches	<b>★★★★½</b>	<a href="http://macworld.com/1451">macworld.com/1451</a>	\$1,451	161
MacBook Pro	Intel Core Duo/2GHz	15 inches	<b>★★★★½</b>	<a href="http://macworld.com/1475">macworld.com/1475</a>	\$1,699	167
	Intel Core Duo/2.16GHz	15 inches	<b>★★★★½</b>	<a href="http://macworld.com/1476">macworld.com/1476</a>	\$2,149	167
	Intel Core Duo/2.16GHz	17 inches	<b>★★★★½</b>	<a href="http://macworld.com/1383">macworld.com/1383</a>	\$2,400	193

<sup>A</sup> From a PriceGrabber survey of retailers as of October 18, 2006. <sup>B</sup> Speedmark 4.5 is Macworld Lab's standard test tool for benchmarking systems running Mac OS X 10.4 (Tiger). For information on Speedmark testing, go to [www.macworld.com/speedmark](http://www.macworld.com/speedmark).

## MIDRANGE SCANNERS

### Top Product: CanoScan 9950F (\$399), from Canon ([www.canonusa.com](http://www.canonusa.com))

The CanoScan 9950F raises the bar for midrange scanners by offering high optical resolution, improved scan quality for both transparent and reflective media, and intuitive software controls. Its optical resolution is 4,800 dpi, it supports both FireWire 400 and USB 2.0, and it ships with a stack of film holders that hold just about any common format ([macworld.com/0188](http://macworld.com/0188)).

#### ALSO RECOMMENDED:

### Perfection V700 (\$550), from Epson ([www.epson.com](http://www.epson.com)); [macworld.com/1519](http://macworld.com/1519)

This scanner's dual-lens system lets you scan slides and film up to 6,400 dpi—great for producing large prints.



#### BUYING ADVICE

Resolution and the ability to scan transparencies are two things to focus on when considering a scanner. Some vendors provide attractive software bundles with a scanner, but make sure that the software actually works on your Mac.

## DESKTOP HARD DRIVES

### G-Drive Q (\$559), from G-Technology ([www.g-technology.com](http://www.g-technology.com))

The G-Drive Q SATA 500GB hard drive has nearly every type of connection you could want. The Q stands for quad—referring to the four different types of data connectors on the drive. You'll find two FireWire 800 ports, a FireWire 400 port, a USB 2.0 port, and a high-speed SATA port. It operates without a fan so the G-Drive Q is very quiet—you hear only the occasional spin of the drive ([macworld.com/1622](http://macworld.com/1622)).

#### ALSO RECOMMENDED:

### d2 Extreme ▶ (\$259), from LaCie ([www.lacie.com](http://www.lacie.com)); [macworld.com/1013](http://macworld.com/1013)



### My Book Pro Edition 500GB (\$350), Western Digital ([www.westerndigital.com](http://www.westerndigital.com)); [macworld.com/1566](http://macworld.com/1566)

### Black Series Triple Interface 250GB (\$240), from Iomega ([www.iomega.com](http://www.iomega.com)); [macworld.com/0580](http://macworld.com/0580)

### Mercury Elite-AL Pro 7,200 rpm FireWire 800/400 + USB2, 250GB (\$230), from OWC ([www.macsales.com](http://www.macsales.com)); [macworld.com/0580](http://macworld.com/0580)

**BUYING ADVICE** When buying an external hard drive, first consider capacity. Buy a drive with more space than you think you'll need, particularly if you'll be storing high-quality images, video, or music files. Then factor in speed and connection options—USB, FireWire 400, FireWire 800, and SATA. Also, it helps if the drive looks good sitting on your desk.

## PORTABLE HARD DRIVE

### Rocbit 2B

100GB (\$230), from Rocsecure ([www.rocsecure.com](http://www.rocsecure.com))



The Rocbit 2B, which has 40-bit encryption, is priced a bit higher than similar portable drives that lack encryption, but it's well worth the premium if security is a concern. In our tests, the Rocbit 2B was 6 to 31 percent faster than three comparable drives from other vendors ([macworld.com/1443](http://macworld.com/1443)).

#### BUYING ADVICE

Size isn't everything when it comes to portable hard drives—but it almost is. Nearly every portable drive you encounter will have a USB connection. Pricing can be very diverse, and is often a reflection of how visually stylish a drive is.

## MAC MINI HARD DRIVE

### MiniMax

250GB (\$250), from Iomega ([www.iomega.com](http://www.iomega.com))



The MiniMax fits neatly under the mini, and its integrated USB and FireWire hub makes it a great companion to the littlest Mac ([macworld.com/1159](http://macworld.com/1159)).

#### BUYING ADVICE

Though Apple's Mac mini isn't quite as popular as the iPod, it has attracted its share of third-party accessory vendors. One great feature to have in an external hard drive for your mini is an integrated USB or FireWire hub, which expands the number of ports available to you.

## LCD MONITORS

### LARGE LCD MONITORS

### L2335 (\$1,599), from Hewlett-Packard ([www.hp.com](http://www.hp.com))



Along with its outstanding value, analog and digital connectors, ability to pivot to portrait mode, and adjustable height, the 23-inch L2335 provides excellent video-in options and very good color fidelity and viewing angle ([macworld.com/0278](http://macworld.com/0278)).

#### ALSO RECOMMENDED:

### PremierPro 23-Inch (\$2,000), from Sony ([www.sony.com](http://www.sony.com)); [macworld.com/0278](http://macworld.com/0278)

### UltraSharp 2405FPW (\$1,199), from Dell ([www.dell.com](http://www.dell.com)); [macworld.com/1772](http://macworld.com/1772)



### MEDIUM LCD MONITORS

### MultiSync LCD2070NX (\$799), from NEC ([www.necdisplay.com](http://www.necdisplay.com))

The MultiSync LCD2070NX is great for people who want a moderately priced 20-inch monitor that can display bright, accurate colors. It sports digital and analog inputs, an integrated USB 2.0 hub, and a thin bezel ([macworld.com/0636](http://macworld.com/0636)).

#### ALSO RECOMMENDED:

### MultiSync 2190UXi (\$1,500), from NEC ([www.necdisplay.com](http://www.necdisplay.com))

This 21-inch monitor is designed—and priced—for pro users. For people who can afford it, the 2190UXi delivers colors that are both vivid and accurate from nearly any angle ([macworld.com/1445](http://macworld.com/1445)).

### SyncMaster 204T 20-Inch (\$499), from Samsung ([www.samsung.com](http://www.samsung.com)); [macworld.com/1016](http://macworld.com/1016)



### SMALL LCD MONITORS

### UltraSharp 1707FP (\$279), from Dell ([www.dell.com](http://www.dell.com))

Budget-conscious shoppers won't be disappointed with this highly flexible 17-inch monitor ([macworld.com/1259](http://macworld.com/1259)).

**BUYING ADVICE** You can spend a lot on an LCD monitor if you want the biggest and best. LCD monitors are more expensive than CRT monitors, but they're generally more energy efficient and provide larger viewing areas. Make sure that you are comfortable with an LCD's native resolution before you make your choice, and then buy as much monitor as you can afford.

**Top Products** are those we've recently reviewed in a comparison of like products. As new products become available, we will update the list. For longer reviews of these products and for other product recommendations, go to [macworld.com/reviews](http://macworld.com/reviews). All prices are as rated. For the best current prices, go to [macworld.com/pricegrabber.com](http://macworld.com/pricegrabber.com). All products were available as of October 2, 2006.

# MACWORLD'S GEAR GUIDE

The mercury's dropping, the days are shorter, and the chill in the air has a little more bite to it. If the arrival of winter has got you down, take comfort in the fact that there's still one thing cooler than the weather—all the great hardware, software, and other Mac paraphernalia that's available to you.

Our editors and experts have been scouring the Mac landscape, searching for eye-catching Mac gadgetry that will simplify your life, improve your computing experience, or just bring a smile to

your face. The result: 52 products in 11 categories, at prices for any budget. From mobile users to families, from gamers to geeks, there's something here for everyone—whether you're trying to find the perfect gift for the Mac user in your life or adding to your own collection of gear.

Once you've had a chance to check out the assembled hardware, software, services, and other goods, we're sure you'll reach the same conclusion we did: Things are about to heat up around here.

## 52 Ultracool Gadgets, Apps, and

# IDE

## PRICING GUIDE

- \$ Bargain Bin (\$30 or Less)
- \$\$ Inexpensive (\$31 to \$60)
- \$\$\$ Moderate (\$61 to \$150)
- \$\$\$\$ Pricey (\$151 to \$350)
- \$\$\$\$\$ Break Out the Platinum Card  
(More than \$350)

## GAUGING THE GEAR



One challenge of choosing cool gear is to strike the proper balance between stuff that makes your daily tasks go more smoothly and stuff that helps you blow off steam. To assist you in sorting the practical from the pleasurable, we've included this helpful meter with each of our 52 selections.

# Tech Wonders

PHOTOGRAPHY BY PETER BELANGER

# GEAR FOR THE OFFICE

Workers of the world, unite—you have nothing to lose but your lackluster gadgets, once they are replaced with this new and improved loot.



## COLORFUL CONVERSATIONS

**\$** If you are going to walk around with a Bluetooth headset hanging off your ear, you may as well like the way it looks. Jabra's **BT160** headset includes 33 designer covers so you can customize its appearance. Artistically inclined talkers can even make their own covers. Boasting up to 110 hours of standby time and up to eight hours of talk time, the BT160 should last through even marathon hands-free conversations, and an adjustable rubber earclip provides a comfortable fit. The BT160 works with any Bluetooth phone and some Bluetooth-enabled Macs (\$60; [Jabra, www.jabra.com](http://www.jabra.com)).—DAN FRAKES

## Surge-a-Pod

**\$\$\$\$**

PowerSquid's five-tentacle **Outlet Multiplier** was all the rage a year ago; it let you plug in five bulky "wall wart" power adapters without a single one of them feeling crowded. The original circuit cephalopod has evolved into the **Surge3000 Calamari Edition**, which offers six outlets (two of them glow, to make plugging them in under desks easier); 3,240 joules of surge protection, including coaxial-cable, DSL, and phone protection; power filtering; and a \$500,000 surge-protection warranty for connected equipment. The Surge3000 itself can plug into almost any outlet space, thanks to its swiveling plug. Finally, the Surge3000's curves make it one of the most attractive surge protectors you'll find (\$80; [PowerSquid, powersquid.net](http://PowerSquid.com)).—DAN FRAKES



## Nothing Left to Lose

**\$\$\$\$**

Portable FireWire hard drives are both fast and useful, but toting around a cable—to say nothing of an AC adapter—means having one more thing to plug before you can actually play. It also means one more thing to possibly lose. Not so with Apricorn's **Aegis Mini**, which has a built-in FireWire cable that tucks in tightly for travel. Plus, it's bus-powered, so you won't be tied in FireWire or adapter knots (\$30GB, \$169; 60GB, \$249; [Apricorn, www.apricorn.com](http://Apricorn.com)).—ERIC SUESZ



## One Phone to Rule Them All

**\$\$\$**

A lot of cordless phones out there come with multiple handsets, but how many do you know of that can double as a bridge to your cell phone—and even act as surveillance equipment? Motorola's **C51 Communication System** can do these things and more; its array of add-ons includes a color-screen-equipped handset that works with a wireless camera/intercom accessory for video and audio monitoring, and a Bluetooth accessory that works with your mobile phone so you can use the C51's handset to place and answer mobile calls (handset with digital answering machine, \$70; wireless camera/intercom accessory, \$80; Bluetooth interface, \$100; [Motorola, www.motorola.com](http://Motorola.com)).—PETER COHEN



## COLOR ME BUSY

**\$**

The phone rings and a round plastic object next to the phone is glowing blue. This color tells you that the call is from one of your pals, so the conversation can wait if you're pressed for time. And it's all thanks to the **Color-Call Caller ID**, which takes call screening to new, color-coded heights. You can assign one of four colors—red, blue, green, and purple—to as many as 100 numbers, so you can quickly see which group a caller belongs to. The Color-Call features an LCD that shows both the number and the name of the caller, and it lets you adjust its brightness—so you can see the red glow of your boss's phone call from across the room (\$30; [Brookstone, macworld.com/1747](http://Brookstone.com)).—DERIK DELONG



# GEAR FOR PHOTO BUFFS

These selections will help you get great shots and turn those images into something memorable.

## Angling for the Shot

\$\$\$ FUN HANDBY AGNH

Contorting yourself into a pretzel-like shape to compose a shot is a pretty steep price to pay for adding another memorable photo to your library of images. Fortunately, Hoodman offers the **Universal Right Angle Viewer**, an attachment that snaps onto the viewfinder of most digital SLR cameras and allows you to shoot from a comfortable position while pointing your camera every which way. The attachment has a comfortable rubber eyepiece and a built-in diopter lens (\$130; **Hoodman**, [www.hoodmanusa.com](http://www.hoodmanusa.com)).—RICK LE PAGE



## Easy on the Eyes

\$\$\$\$\$ FUN HANDBY AGNH

Tired of squinting at your digital camera's LCD? Feast your eyes on the **Stylus 730**, from Olympus. This 7-megapixel camera has a generous three-inch screen that displays text and icons in large, easy-to-read type. Buttons for commonly used features, such as macro and exposure-compensation settings, are on the camera, saving you from scrolling through menus (\$400; **Olympus**, [www.olympus.com](http://www.olympus.com)).—KELLY TURNER



## PROTECT THE COFFEE TABLE WITH STYLE

\$\$ FUN HANDBY AGNH

**Tilano Fresco's Marble Coaster Kit**

lets you place the image of your choice on a 4-by-4-inch marble tile. The kit comes with four tiles and everything you need to produce the finished product—except the photos, which you supply. The do-it-yourself element is fun but time-consuming—it'll involve at least one trip to your local copy shop. But the finished product offers a unique way to preserve some of your memorable photos (\$40; **Tilano Fresco**, [www.tilano-fresco.com](http://www.tilano-fresco.com)).—JACKIE DOVE

You need a

# QUICKY!

Introducing the Quicky  
Wireless USB Transceiver  
exclusively from QuickerTek!

- Be iTV Ready
- Just Plug N Play - No Tools Required
- 15 x's More Power than Apple's AirPort cards
- Works with Mac OS X 10.3-10.4
- Works with International AirPort cards
- Compatible with 802.11 b/g access points
- Works with all Macs

**QUICKERTEK**  
WIRELESS PERFORMANCE PRODUCTS FOR MAC

[www.quickertek.com](http://www.quickertek.com) • 316.691.1585

See our carry handles featured in this issue

## Use Your iPod More



### The Pod Safe™

Safely Bring Your iPod Everywhere You Go

**The Pod Safe™** case and locking cable prevent theft and damage to your iPod. Enjoy secure, hands-free listening while you walk, hike, bike, or party. Never drop it. Never have it lifted. The Pod Safe is the ultimate iPod accessory providing security and convenience.



B+ Recommended by iLounge® and given a 4-star Endorsed Product rating by iProng, the Pod Safe is the only iPod security device with a four-digit combination lock and armor-like protection.

Free UPS Ground Shipping!

See them, buy them at [www.Secure-It.com](http://www.Secure-It.com)  
or call 1.800.451.7592

**Secure-It**

Also available in black.  
Pod Safes fit iPod and all iPod Nanos.

iPod and iPod interface are registered trademarks of Apple Computer, Inc.

## GEAR FOR PHOTO BUFFS

continued from previous page



## A Picture's Worth a Thousand E-mails

**\$\$\$\$** If you just snapped a photo of Bill Gates jogging with a nano, and you need to get it to the tabloids—fast! If you had the Nikon **Coolpix S7c**, you could run to your nearest cybercafé and e-mail the photo directly from the camera. This slim 7-megapixel camera can upload photos via just about any open Wi-Fi hotspot. In fact, it comes with a year's access to T-Mobile's HotSpot Wi-Fi service. The camera also features a three-inch LCD and in-camera image processing that helps you get better images when shooting portraits or low-light photos (\$350; [Nikon](http://www.nikon.com), [www.nikon.com](http://www.nikon.com)).—KELLY TURNER

## EAT THIS PHOTO



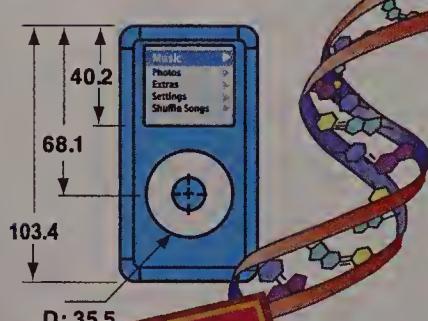
If the way to the heart is through the stomach, these tasty treats are bound to inspire love. To create its **Oreo Picture Cookies**, Lady Fortunes starts with an Oreo cookie, dips the cookie in white chocolate, prints the photo you've submitted on top of the chocolate—in edible ink, of course—and then surrounds the artwork with sprinkles of your choosing. Nine cookies (which come prettily packaged in a gold box with a matching ribbon and gift note) cost \$28. The box ships with a cold gel pack that keeps things cool. Lady Fortunes also prints photos on fortune cookies and sugar cookies, so you're sure to find a snack as tasty as your photos are striking (\$28; [Lady Fortunes](http://LadyFortunes.com), [macworld.com/1757](http://macworld.com/1757)).—KELLY TURNER



## EazyDraw®

Make Drawing Fun on OS X

- Technical Drawings
- Illustrations
- Charts & Diagrams
- Text Layout
- Web Graphics
- "This Advertisement"



ArtyFacts

Edit: PDF, PICT,  
MacDraw, ClarisDraw

<http://www.eazydraw.com>

ph: 608.444.5245

fax: 608.635.2124



© 2006 EazyDraw, a Dakorra Optics LLC enterprise. All rights reserved. EazyDraw is a registered trademark of Dakorra Optics, LLC. Mac and Built for OS X are trademarks of Apple Computer, Inc.



## BookEndz

## DOCKING STATIONS FOR APPLE COMPUTERS

Convert your MacBook Pro®, MacBook®, PowerBook®, or iBook® into a desktop in seconds without misplacing cables or damaging connectors.

15.4"  
MacBook®  
Docking Station

- Aluminum Plate helps in cooling of notebook
- Connectors are routed to rear of Dock
- MagSafe® Housing prevents accidental disconnect

13.3"  
MacBook®  
Docking Station

- Also available in Black
- 5 USB 2.0 compliant ports (4 port powered or unpowered hub, DC adapter included)
- Built in DVI/VGA full size
- Gigabit Ethernet RJ45

17"  
PowerBook® G4  
Docking Station

- 15" PowerBook® G4 Docking Station

12"  
PowerBook®  
Docking Station

iBook®  
G3/G4 Models  
Docking Station

Visit our website for latest product announcement [www.BookEndzdocks.com](http://www.BookEndzdocks.com)

BookEndz®

Manufactured by Olympic Controls

1250 Crispin Drive • Elgin, Illinois 60123 • USA  
Phone: 847-742-3566 • Fax: 847-742-5686 • Toll Free: 888-622-1199  
E-mail: [Sales@BookEndzdocks.com](mailto:Sales@BookEndzdocks.com)

# GEAR FOR ON-THE-GO



## Stop Feeling the Burn

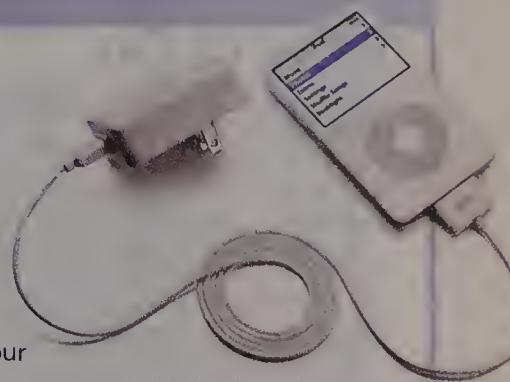
\$ FUN 1 2 3 4 5 HANDY

Many laptops get too hot to rest on human legs. LapWorks' **Laptop Desk 2.0**—a portable, 22-ounce polycarbonate desk that keeps your laptop safely away from your skin—can be a real lap-saver. At 20.5 by 11.2 inches, it's large enough for even the 17-inch MacBook Pro, but it folds up to half that size to fit in your laptop bag (\$30; [LapWorks, laptopdesk.net](http://lapworks.com)).—DAN FRAKES

## Become a Global Power

\$\$ FUN 1 2 3 4 5 HANDY

Apple sells an iPod wall charger for \$30. But for a mere \$5 more, Griffin Technology's **PowerBlock Travel** lets you charge your iPod not only in Omaha and New York, but also in Rome and Beijing. The accessory handles any voltages you're likely to come across in your travels, converting them to the 12-volt DC needed to keep your iPod juiced. And as a bonus, the PowerBlock Travel can be used with many battery-powered devices that charge via USB (\$35; [Griffin Technology, macworld.com/1748](http://griffintechnology.com)).—RICK LE PAGE



## LET YOUR MAC (FINALLY) BE YOUR GUIDE

\$\$\$ FUN 1 2 3 4 5 HANDY



GPS-using Mac owners no longer have to envy the abundance of Windows software that comes with GPS devices. **RouteBuddy**, a Universal app, provides street-level mapping of most of the United States and Europe, as well as a smattering of Asia. With it, you can transfer routes, waypoints, and tracks to and from your GPS while easily searching for tens of thousands of points of interest (\$100; U.S. map, \$50; other map prices vary; [RouteBuddy, www.routebuddy.com](http://routebuddy.com)).—BEN LONG

## mTune for 2G nano

[www.macally.com](http://www.macally.com)



macally™

Call or dealers near you 1.800.644.1132

Travelers, laptop devotees, and other mobile users will want to hold still long enough to check out these gadgets and accessories.

## GEAR FOR ON-THE-GO

continued from previous page

## iMac to Go

**\$\$\$\$** FUN 1 2 3 4 5 **NOTH**

It's no secret that the iMac uses a lot of the same parts as a laptop. And even though the 17-, 20-, and 24-inch iMacs weigh in at 15.5, 22.0, and 24.7 pounds, respectively, they're fairly portable, thanks to their slender form factor. Still, you don't want to expose such a beautiful veneer to the hazards of the road. The **Timbag** is designed to carry an iMac; it has special

compartments that hold the keyboard, the mouse, cables, and even a few CDs or DVDs (**€179**; Timbag, [www.timbag.net](http://www.timbag.net)).

—DERIK  
DELONG**biomorph<sup>®</sup>**

ergonomic computer furniture

*desks that  
adjust to  
your lifestyle*



free catalog 888 302 DESK



## THE JUST-IN-CASE CASE

**\$** FUN 1 2 3 4 5 **HANDY**

Laptop sleeves like the **Skooba Skin 1415** let you carry a portable in a regular bag while providing just enough padding that the machine can withstand the rigors of mobility. The 1415 can hold any 15-inch notebook. Other Skooba Skin sizes are available (**\$35**; [RoadWired](http://RoadWired.com), [www.roadwired.com](http://www.roadwired.com)). —DAN MILLER

## Where I Am

**\$\$\$\$\$** FUN 1 2 3 4 5 **NOTH**

NavMan's line of tiny GPS receivers—highlighted by the **NavMan N60i**—are like a live version of Google Maps. The N60i calculates your destination, shouts out directions, and does a remarkable job of estimating when you'll arrive (**\$600**; [NavMan](http://navman.com), [navman.com](http://navman.com)). —JASON SNELL



## Mobile Artist

**\$\$\$** FUN 1 2 3 4 5 **NOTH**

Timbuk2's **Artist's Canvas Bag** is made of untreated cotton, so you can draw on it, paint it, and otherwise personalize it; see the artist's gallery at [macworld.com/1760](http://macworld.com/1760) (**\$90**; Timbuk2, [www.timbuk2.com](http://www.timbuk2.com)). —DAN MILLER

## Jukebox Station

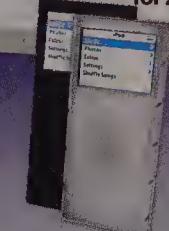
Designed and manufactured by Saffire USA

Distributed and marketed exclusively by Pacific Rim Technologies

PACIFIRIM  
TECHNOLOGIES

## Gel Shield

for 2nd Gen iPod nano



- 2 Pack (Black and White)
- Includes Armband, screen protector and lanyard
- MSRP: \$24.99

## Cube Speakers



- Available in Black or White
- Includes nano 1.0 adapter and AC Adapter
- MSRP: \$19.99

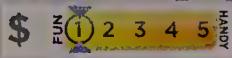
- With iPod Dock
- Approx 3.3 feet in height
- Includes IR Remote

AVAILABLE EXCLUSIVELY ON [Target.com](http://Target.com)[PacRimTechnologies.com](http://PacRimTechnologies.com)

# GEAR FOR THE STYLISH

Hardware, software—active wear? Some users wear their love for the Mac somewhere other than on their sleeves.

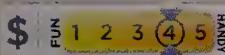
## Dress for Obsolescence



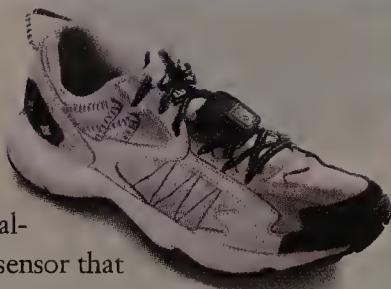
When Apple released the Power Mac G4 Cube in August 2000, you embraced its elegant design and compact form. Sadly, you were just about the only one who did—Apple discontinued the Cube less than a year after its debut. Thanks to RedLight Runner—your online source for Apple-themed T-shirts, posters, and knickknackery—you can pick up a retro **G4 Cube**

**T-shirt** to prove once and for all to those doubters that you were right about this sleek desktop (\$30; [RedLightRunner, macworld.com/1758](#)).—PHILIP MICHAELS

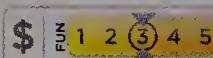
## JUST DO IT—IN ANOTHER PAIR OF SHOES



The \$29 Nike + iPod Sport Kit ([macworld.com/1776](#)) provides real-time feedback during a workout, courtesy of a wireless sensor that slips neatly beneath a Nike+ shoe's insole. But what if you prefer to run (or walk) in shoes without Nike's logo (or a Nike price tag)? Marware's **Sports Sensor+** is a fitted, water-resistant, Velcro-close pouch that slides easily under your shoelaces, securing the sensor for a long run (\$10; [Marware, www.marware.com](#)).—JEFF MERRON



## Cut Cable Clutter



While working out, avoid getting tangled in your headphone cables. Malachi and Company's **PodWear** shirts have a pouch for your iPod nano or shuffle, with loops to keep the cables snug against your body so they don't get caught on arms, hands, and equipment. The shirt lets you easily access your iPod (\$28; [Malachi and Company, www.malachilandcompany.com](#)).—DAN FAKES

**Protection Pack+Plus**  
for MacBook®

13"

fits 13" MacBook®

Includes:  
Keyboard cover  
Hand rest  
Microfiber sleeve

**Ultimate Protection**

White MacBook package includes :

Keyboard cover  
White hand rest  
Silver microfiber sleeve

\*Also available for MacBook™ Pro 15"+17"

You didn't compromise on your notebook—don't compromise on its protection.

[www.MARWARE.com](#)

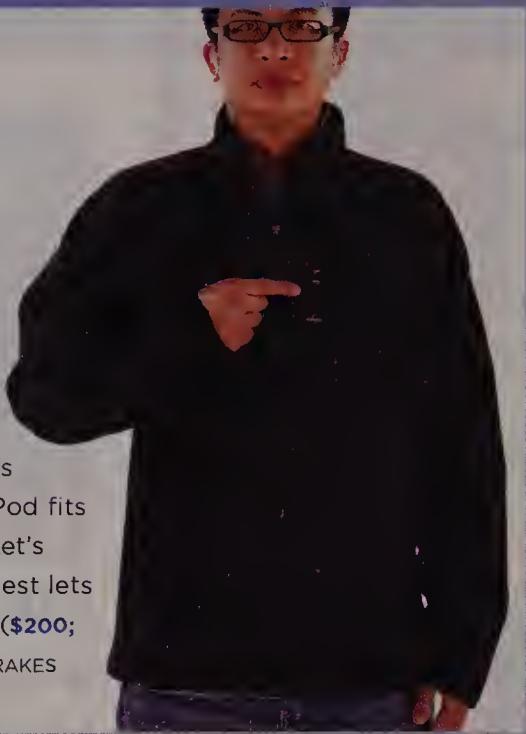
## GEAR FOR THE STYLISH

continued from previous page

### Now That's a Loud Jacket

**\$\$\$\$** FUN 1 2 3 4 5 HANNAH

JanSport's new **Power Jacket** for men may be the best "iPod-enabled" jacket yet. Made of water-resistant soft-shell fabric and lined with fleece, the form-fitting but stretchy Power Jacket is perfect for active listeners. Your iPod fits in an internal pocket near the jacket's waist; a soft-button pad on the chest lets you control playback and volume (\$200; JanSport, [www.jansport.com](http://www.jansport.com)).—DAN FRAKES



### Pretty in Pink

**\$** FUN 1 2 3 4 5 HANNAH

iPod nano owners who appreciate sleek and streamlined silhouettes—and that pretty much covers all of them, I'd guess—will appreciate the look-and-feel of Pacific Design's **iPod Nano Uptown Clutch**. The accessory elegantly combines a strappy clutch wallet that lets you carry around the necessities—ID, credit cards, and cash—with a carrying case for your nano. There's even a mesh storage pouch for your earbuds and cables. The Uptown Clutch is also available in brown, black, blue, and red (\$30; [Pacific Design, www.pacificdesign.com](http://www.pacificdesign.com)).—PHILIP MICHAELS



## GEAR FOR IPOD USERS

### TALK TO THE IPOD

**\$\$** FUN 1 2 3 4 5 HANNAH

When Apple unveiled the fifth-generation iPod, an exciting specification was hidden in the fine print: with a compatible microphone, this iPod could record CD-quality audio. Although it took the better part of a year for such devices to appear, they've finally arrived—and XtremeMac's **MicroMemo** tops the list. This iPod add-on not only offers a flexible mono mike that captures clean recordings, but also houses tiny speakers that let you listen to your memos and music (albeit at transistor-radio quality). The MicroMemo accepts microphone and line-level inputs, and its somewhat bulky microphone can be removed so you can attach a mike of your choosing (\$60; [XtremeMac, www.xtrememac.com](http://www.xtrememac.com)).

—CHRISTOPHER BREEN

### Same Great Sound, Different Look

**\$\$** FUN 1 2 3 4 5 HANNAH

Grado's SR60 has long earned praise for providing stellar sound quality for just \$60, but it hasn't garnered raves for comfort. The **iGrado** features the guts of the SR60 in a sportier, behind-the-head model that provides that famous Grado sound. It's also comfortable and snug enough for active wear (\$60; [Grado, www.gradolabs.com](http://www.gradolabs.com)).—DAN FRAKES



### Eyepod Hi-Fi

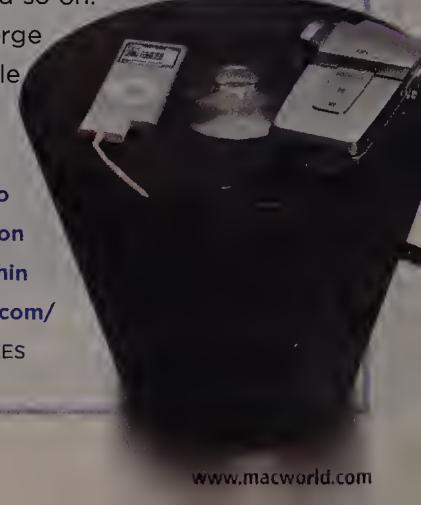
**\$\$\$\$** FUN 1 2 3 4 5 HANNAH

No, that's not an insect head; that's JBL's new **Go + Play** portable speaker system for the iPod. A horizontal iPod dock on top makes controlling your iPod easy; an RF remote provides great range and the ability to navigate your iPod's menus from afar; an S-Video output lets you view photos and videos on your TV; and sound quality and maximum volume are impressive (\$300; [JBL, www.jbl.com](http://www.jbl.com)).—DAN FRAKES

### Potted Power Plant

**\$\$\$\$** FUN 1 2 3 4 5 HANNAH

At 7.5 inches tall and 9.25 inches around, the **Multipot Personal Electric Charger** looks like a fancy flowerpot—but it's really the most elegant power strip I've ever seen. Under its lid are five standard power outlets—plug in the chargers for your iPod, mobile phone, PDA, and so on. The cables emerge from a small hole on top, ready to charge your gadgets (\$228 to \$238, depending on color; [Design Within Reach, macworld.com/](http://DesignWithinReach, macworld.com/) 1763).—DAN FRAKES



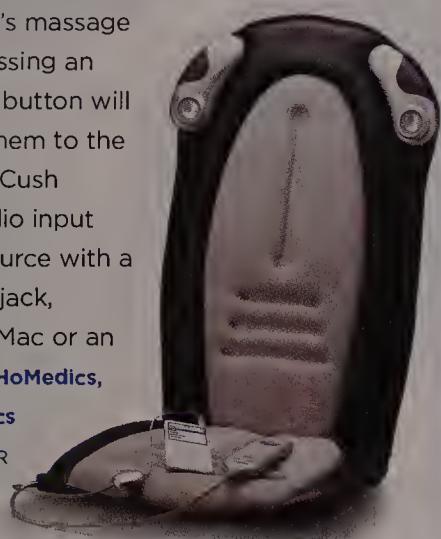
# GEAR FOR GAMERS

None of these items will help you rack up high scores on the latest shoot-'em-up. But they'll certainly make your gaming experience a lot more pleasant.

## A Little Rubdown with Your Fragging?

\$\$\$ FUN 1 2 3 4 5 HANDY

The worlds of massage and Mac gaming don't often intersect. But HoMedics has applied its massage-chair know-how to creating a game seat featuring built-in speakers and some subwoofer rumble. The iCush doesn't just make noise—it massages your back, too. Three settings let you configure the seat's massage motors; pressing an Audio Sync button will even sync them to the music. The iCush accepts audio input from any source with a headphone jack, including a Mac or an iPod (\$100; HoMedics, [www.homedics.com](http://www.homedics.com)).—PETER COHEN



## Graphic Improvements

\$\$\$\$ FUN 1 2 3 4 5 HANDY

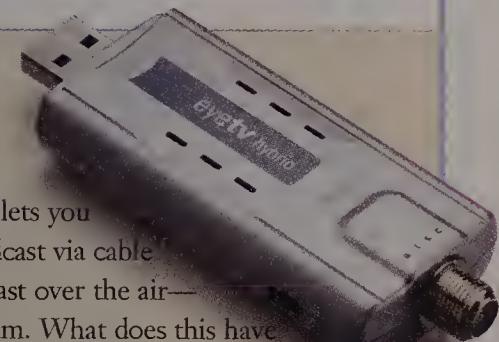
With twice the memory and about four times the memory bandwidth of the Nvidia GeForce 7300 GT that comes with the standard Mac Pro configuration, Apple's **Radeon X1900 XT** upgrade kit should satisfy even the most demanding gamer. But Mac users don't live by frame rates alone—the Radeon's improved OpenGL performance also pays off if you're using applications that leverage OpenGL or OS X's Core Image technology (\$399; Apple Computer, [macworld.com/1755](http://macworld.com/1755)).—PETER COHEN



## MAKE YOUR MAC A MEDIA CENTERPIECE

\$\$\$ FUN 1 2 3 4 5 HANDY

Elgato's **EyeTV Hybrid** lets you watch analog TV broadcast via cable or satellite, as well as digital terrestrial TV broadcast over the air—from a device that's barely larger than a pack of gum. What does this have to do with gaming? Well, if you use your Mac as a display with your favorite game console, the EyeTV Hybrid features composite-video and S-Video inputs with an included cable adapter. Best of all, this setup won't introduce lag time into your game play (\$150; Elgato Systems, [www.elgato.com](http://www.elgato.com)).—PETER COHEN



IMSI

Version 2

## TurboCAD<sup>®</sup> MAC PRO

Precision 2D Drafting & 3D Modeling



AutoCAD<sup>®</sup> & Adobe<sup>®</sup> Illustrator<sup>®</sup> Compatible  
Realistic 3D Rendering  
Intuitive. Powerful. Precise.

To order call: 1-800-833-8082 Use Promo Code: MacWorld06  
or visit: [www.turbocad.com/mw06](http://www.turbocad.com/mw06)

Visit our booth at MacWorld, January 8-12, 2007

**RADTECH**  
Solutions that make sense



### UM Series In-Ear Monitors

- Unsurpassed isolation from outside sound and noise
- Secure in the ear fit for optimal tonal performance
- Multiple wearing options - true in-ear design is invisible when worn



10% off your order with **Promo Code MW126E** expires 2/15/07

[www.radttech.com](http://www.radttech.com)

# GEAR FOR GEEKS

Geeks like electronic gadgetry? Who would have guessed that?



## You Light Up My Billfold

**\$** 1 2 3 4 5 HONH

Anyone who has ever fumbled through a wallet while trying to find the right bills in a dark bar has probably thought, "If only my wallet came equipped with a beam of light, I could actually see what I was doing." Enter **Walit**, made by Jomoke and available from online retailers including Gadgetstorm.com. This leather billfold contains an electroluminescent strip that illuminates even the most stygian evening. And to preserve the replaceable watch batteries that power the Walit, the light goes off when you fasten the Walit's snap (**£15**; [Jomoke](http://www.jomoke.com/walit.htm), [www.jomoke.com/walit.htm](http://www.jomoke.com/walit.htm)).—DAN MOREN

## Cleanse All Humans

**\$\$\$\$\$** 1 2 3 4 5 HONH

**Washing Robot** with a special cleaning solution and push a button. About an hour later, your kitchen floor will be vacuumed, scrubbed clean, and dried. True, the machine can't handle heavy vacuuming, and you have to rinse it out when the work is done. But if the alternative is not cleaning your floors frequently, that's a small price to pay for freedom from squalor (**\$400**; [iRobot](http://www.irobot.com), [www.irobot.com](http://www.irobot.com)).—SCHOLLE SAWYER McFARLAND



## Get a (Virtual) Life

**\$\$\$** 1 2 3 4 5 HONH

Need a gift for someone who has everything? How about a new life? In the digital world **Second Life**, more than 750,000 users from around the globe come together, in avatar form, to engage in assorted virtual activities. Sure, your friends could use a free basic account, but start them out with a generous gift certificate—in their virtual pockets (**annual premium membership, \$72**; [Second Life](http://www.secondlife.com), [www.secondlife.com](http://www.secondlife.com)).—SCHOLLE SAWYER McFARLAND



## DATA ON THE RUN

**\$\$\$** 1 2 3 4 5 HONH

Ever wonder how you move during the course of the day? The scientifically minded will marvel over Onset Computer's **Hobo Pendant G Logger**, which logs movement in all three axes. You can throw it in your backpack or pocket before you go for a bike ride or go windsailing. The industry-grade Logger is waterproof. The accompanying software was built on a Mac so the data you've collected on your travels converts into easy-to-read graphs on your Mac (**Logger, \$69; kit with Logger, USB adapter, and software, \$99**; [Onset Computer](http://www.onsetcomputer.com), [www.onsetcomputer.com](http://www.onsetcomputer.com)).—DERIK DELONG



## Say It with a Scroll

**\$\$** 1 2 3 4 5 HONH

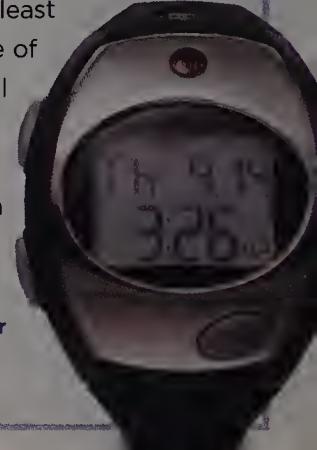
It's hard to communicate when you're speeding down a highway with only a few distinctive hand gestures at your disposal. Thankfully, there's the **License Plate Flash Frame**, from Smart Planet. Available through online resellers, this frame connects to your car's electrical system, letting you express up to 120 characters of your deep thoughts on a lighted, scrolling display. Save up to five pro-Mac messages beside your well-placed Apple logo sticker and you can take your Mac advocacy to the open road (**\$50**; [Perpetuakid](http://www.perpetuakid.com), [macworld.com/1761](http://macworld.com/1761)).—PHILIP MICHAELS



## Crème de la REM

**\$\$\$** 1 2 3 4 5 HONH

Tired of being tired? The **SleepTracker** uses a motion sensor to observe and learn your sleep cycles while you sleep. You tell the Sleep-Tracker when you want to wake up, and it will sound the alarm—within half an hour or so, when you're least likely to be in the middle of a deep sleep cycle. You'll wake up feeling more rested. When you're awake, it also works as a standard wristwatch (**\$149**; [Innovative Sleep Solutions](http://www.innovativesleepsolutions.com), [www.innovativesleepsolutions.com](http://www.innovativesleepsolutions.com)).—DAN FRAKES



*Christmas songs have never sounded so sweet.*



+



iWoofer  
~~\$119~~ \$99

iWoofer case  
~~\$29~~ free



Editors' rating  
Very good

With purchases made at Rain Design online store from November 1st to December 25th. (iPod not included)

*Other  
sweet deals.*

10% store-wide promotion of all  
our products from November 1st  
to December 25th.

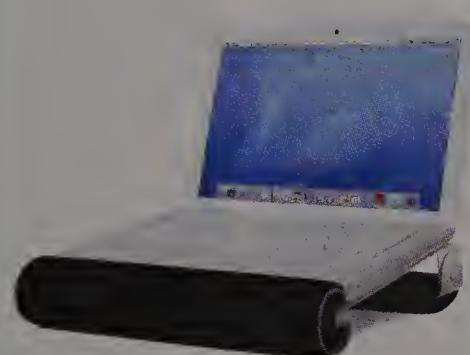


iGo  
~~\$333~~ \$299.70

★★★★★  
Macworld UK



Macworld



iLap  
from ~~\$49.90~~ \$44.91



i360°  
~~\$39.90~~ \$35.91



iLevel  
~~\$79.90~~ \$71.91

[www.raindesigninc.com](http://www.raindesigninc.com) 1800 797 7321

rain

# GEAR FOR THE PARANOID

If you see trouble lurking around every corner, these items will ease your anxiety.

## Mac LoJack

**\$\$\$** 

After you install the subscription-based **Computrace LoJack for Laptops**

on your laptop and register the machine's serial number, the LoJack software logs your IP address. If your laptop is swiped,

Absolute Software tracks the IP address to help track down your missing Mac (**one-year subscription, \$50; Absolute Software, [www.lojackforlaptops.com](http://www.lojackforlaptops.com)**).—JEFF MERRON



## Better Safe than Sorry

**\$\$** 

Few gadgets inspire covetousness quite like the iPod. So if your music player is spending a lot of alone time in a backpack, on a desk, in a locker, or anywhere it might tempt an unscrupulous iPod admirer, consider **The Pod Safe**. This gadget, available for fifth-generation iPods and original iPod nanos, is a polycarbonate-strengthened, ABS plastic case with a steel security cable and a four-digit combination lock. Attach it to something sturdy, and your iPod isn't going anywhere without a fight. The Pod Safe isn't impregnable, but it may convince thieves to take their scheming elsewhere (**\$40; Secure-IT, [www.thepodsafe.com](http://www.thepodsafe.com)**).—DAN FRAKES

## BACKEND SECURITY

**\$\$\$\$** 

Electronic devices are getting smaller and smaller—that's the good news. The bad news is that compact products are easier to swipe, even right out of a backpack. The **SecurePack**, by Mobile Edge, confounds would-be brigands. Instead of exposed pockets and pouches that a nimble-fingered thief can rifle through, this backpack's zippers rest against your back; they're accessible only when you take the SecurePack off. Protecting your laptop shouldn't put your back up against the wall—not when the SecurePack can put your laptop up against your back (**\$80; Mobile Edge, [macworld.com/1749](http://macworld.com/1749)**).—DAN MOREN



**Go ahead,  
wake the neighbors!**

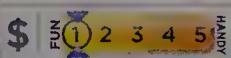
Wireless Ready • Self-powered • Works with everything •  (877)853-4447

**a** **audioengine** **5**

[www.audioengineusa.com](http://www.audioengineusa.com)

# GEAR FOR FAMILIES

## IP Freely

\$ 

ThinkGeek's **Mostly IP Creeper and Toddler Tee** combines potty humor, tech humor, and baby humor and is sure to make geeky parents chuckle (wearily). The shirt fits adorable little packets from

size 6 months to size 4T (\$13; [ThinkGeek, macworld.com/1753](#)).—SCHOLLE SAWYER McFARLAND



## SHAPE THE MUSIC

\$\$ 

Zizzle's **Zoundz** lets you make music out of shapes. Each sculpture represents a type of sound—place one on any of the base unit's three Hot Spots to activate a sample and a colorful light show (\$50; [Zizzle, www.zizzle.com/zoundz.html](#)).—DAN FRAKES

Child-rearing pros and newly minted parents will appreciate these captivating products for the entire clan.

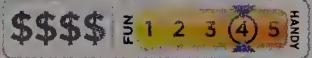
## Rockin' Roll

\$\$\$\$ 

Help new parents serenade their spawn with Kolcraft's **Jeep Overland Limited Jogging Stroller with Music on the Move**. Plug an iPod into this stroller's speaker-equipped tray, and parent and baby can both listen to tunes on-the-go (\$170; [Kolcraft, macworld.com/1752](#)).—SCHOLLE SAWYER McFARLAND



## It's a Bouncing Baby Hard Drive

\$\$\$\$ 

New parents need a way to tote around pictures of their newborn child. Available in pink (30GB) or blue (60GB), the USB 2.0-compatible **Skwarim** (pronounced "square-im") provides portable storage in traditional new-baby colors (30GB, \$150; 60GB, \$200; LaCie, [www.lacie.com](#)).—ERIC SUESZ



## TOUGHTECH™ SERIES

Tough, aluminum cases with shock absorbers for your drive give you portability and capacity up to 750GB!

Four desktop versions:

Dual FireWire

800/400/USB2

with IDE drive (TTXE)

eSATA with eSATA drive (TTE)

FireWire 800 with IDE drive (TT8)

FireWire 400 with IDE drive (TT4)



STARTS AT  
\$79.95!

Add the new  
eSATA Express34  
Adapter for your  
MacBook Pro and take  
a ToughTech eSATA with you  
wherever you go (TC-E34-2S)

ToughTech mini  
pocket drive  
FireWire 800/400/USB2  
with 2.5" SATA drive (TTM)

wiebeTECH™

WiebeTech 2006. ToughTech is a trademark of Wiebe

Buy from our resellers or online at  
[www.wiebetechn.com](#)  
866-744-8722 (toll free)



For Editors,  
Designers,  
& Students

## Introducing

Final Cut Pro/Express  
Keyboard Covers

for Notebooks

Also available for Photoshop,  
Avid, and much more!

Use coupon code MW12  
and save 10% thru 12/31/2006.

Check out our Clear Covers for MacBooks!

> visit [www.kbcovers.com](#)

© KB Covers. All rights reserved. A trademark is the property of the respective owner.



## Folee XS

The world's most ambitious ideas belong in a boooq® bag. Does your MacBook have what it takes to be in a Folee XS?

If so, please visit [www.boooqbags.com](http://www.boooqbags.com) and save 10% with promo code mw06.



boooq and the b logo are trademarks of boooq, Inc. MacBook is a trademark of Apple Computer Inc. Visit [www.boooqbags.com](http://www.boooqbags.com) or call 626.836.9365 for more detailed product information. ©2006 by boooq Inc. All rights reserved.

# GEAR FOR MUSIC LOVERS

Listen to music—or create your own—with this Mac-friendly hardware and software.

## Guitar Hero

**\$\$\$\$** FUN 1 2 3 (4) 5 HANDY

For a guitarist, making music with a Mac doesn't have to involve a complicated setup. With Line 6's **TonePort UX2**, you can connect to your computer via USB and have everything you need to create a masterpiece. The included GearBox software makes a guitar sound like anything from Mississippi Blues to modern Heavy Metal. Plug it in, turn it on, and start recording with your favorite piece of software (**\$269; Line 6, macworld.com/1764**).—JIM DALRYMPLE



## TAKE YOUR LPs FOR A SPIN

**\$\$\$\$** FUN 1 2 (3) 4 5 HANDY

People who enjoy their music the old-school way eschew silvery discs in favor of good-old reliable vinyl records. Trouble is, vinyl collectors who want to make digital copies of their tunes need a battery of equipment, not to mention audio software for recording and editing the music. Or they could just turn to Ion Audio's **iTTUSB Turntable**, which plugs into your Mac's USB port, allowing you to record music directly from your favorite LPs and 45s to the included open-source audio editor, Audacity (**\$199; Ion Audio, macworld.com/1739**).—CHRISTOPHER BREEN



## DOWNLOAD THE CLASSICS

**\$** FUN 1 2 (3) 4 5 HANDY



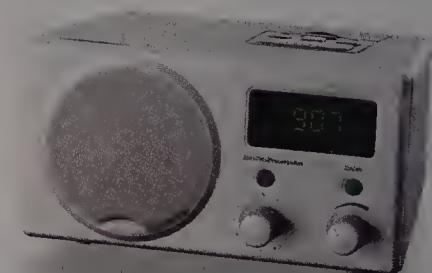
Now that gapless playback has eliminated those between-track pauses in iTunes, it's time to bulk up your classical music collection with **MPKeys**. These electronic box sets play on your iPod or any other digital media player (**6-hour sets, \$20; 3-hour sets, \$15; Naxos, [www.naxos.com](http://www.naxos.com)**).—DAN FRAKES

## Master of Six Strings

**\$\$** FUN 1 2 3 (4) 5 HANDY



iPlayMusic's **Beginning Guitar Lessons** helps you make sure that when you fire up GarageBand, people won't cover their ears. The guitar tutorial software includes more than four hours of on-screen video lessons, an electronic textbook, and chord charts. And it works with iLife (**\$50; iPlayMusic, [www.iplaymusic.com](http://www.iplaymusic.com)**).—DAN FRAKES



## Clock Watchers

**\$\$\$** FUN 1 (2) 3 4 5 HANDY

It's made by Boston

Acoustics, but the **Receptor Radio** is Apple-like in its attention to detail. The clock radio features two independent alarm clocks, impressive radio reception with 20 presets, and an auxiliary-in jack that lets you connect your iPod for bedside listening. A single knob performs many functions—radio tuning, preset selection, and time and alarm setting—depending on the task at hand (**\$150; Boston Acoustics, [macworld.com/1762](http://macworld.com/1762)**).—DAN FRAKES

# GEAR FOR MULTI-MEDIA MAVENS

These peripherals will help you watch and capture video from the comfort of your couch.

## Tiny Camcorder, High Definition

\$\$\$\$\$ F1 2 3 (4) 5 HANW

At just over 4 inches high and 2.2 inches thick, Canon's HV10 will fit comfortably into a coat pocket. But the video that this high definition camcorder captures is definitely *not* lightweight: it records 1080i HD video to MiniDV tapes (\$1,299; [Canon, macworld.com/1765](#)). —RICHARD BAGULEY



## Low-Light Leader

\$\$\$\$\$ F1 2 3 (4) 5 HANW

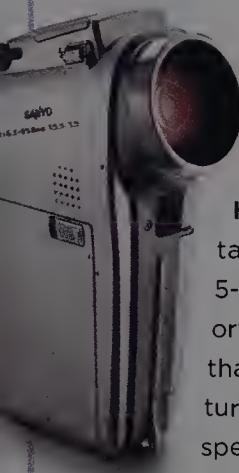
Panasonic's PV-GS300 shoots top-notch standard definition video, and it's one of the better camcorders for shooting in low light. The lens includes optical image stabilization—very useful after a couple of glasses of eggnog (\$500; [Panasonic, www.panasonic.com](#)). —RICHARD BAGULEY



## Go Tapeless

\$\$\$\$\$ F1 2 3 (4) 5 HANW

Sanyo's HD1a Xacti Media Camera eschews tape, recording 720p HD video and 5-megapixel still images to SD Memory Cards. At just 8.3 ounces and less than an inch thick, it's great for capturing candid videos. There's also a special mode for shooting videos to show on a video iPod (\$700; [Sanyo, www.sanyodigital.com](#)). —RICHARD BAGULEY



## THE DEFINING GADGET

\$\$\$\$\$ F1 2 3 (4) 5 HANW

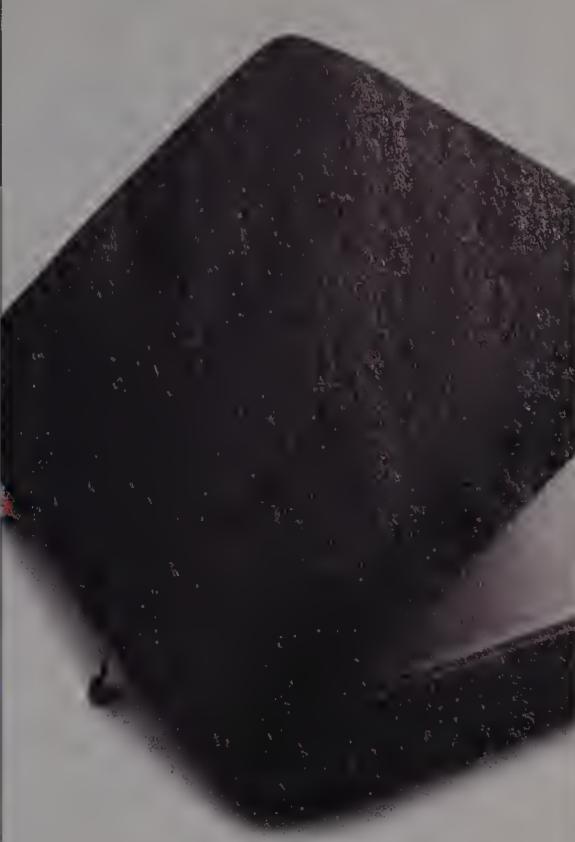
With just a bare white wall (or a retractable movie screen), your Mac, a DVI-to-HDMI cable, and Epson's PowerLite Home Cinema 400 high definition front projector, you can fill a room with bright, rich video. This LCD-panel projector boasts a native resolution of 1,280 by 720 (720p), an aspect ratio of 16:9, and seven color (brightness) modes (\$1,600; [Epson, macworld.com/1740](#)). —CHRISTOPHER BREEN



## Life, the Universal Remote, and Everything

\$\$\$\$\$ F1 2 (3) 4 5 HANW

When your couch is cluttered with remotes, it's easy to see the appeal of universal remotes. But finding one that's easy to use can be a challenge. What really sets Logitech's Harmony 890 apart is that its functions are based on Activities. A color LCD screen displays the things you're most likely to do, such as Watch TiVo, Watch DVD, or Listen To CD; you choose the desired Activity, and the Harmony 890 automatically configures each component in your system for that task (\$400; [Logitech, www.logitech.com](#)). —DAN FRAKES



VYPER  
XL2  
TM

The world's most ambitious ideas belong in a boooq® bag. Does your 17-inch MacBook Pro have what it takes to be in a slick Vyper XL2?

If so, please visit [www.boooqbags.com](#) and save 10% with promo code mw06.

boooq®

boooq and the b logo are trademarks of boooq, Inc. MacBook is a trademark of Apple Computer Inc. Visit [www.boooqbags.com](#) or call 626.836.9365 for more detailed product information. ©2006 by boooq Inc. All rights reserved.

# Tips and Tricks for iTunes 7—Plus Our Review



# iTunes Remixed

By Christopher Breen, Dan Frakes, and Rob Griffiths

**W**hen Steve Jobs introduced iTunes 7, he said that it was the biggest upgrade to the music program since it made its debut almost six years ago.

Nobody argued. From the overall interface to each song's metadata, from the way the program downloads cover art to the way it manages your iPod, there are changes everywhere you look.

But while it's obvious that there are many new features in iTunes, it's less obvious how to use them all. So here's our guide to what's new in iTunes, as well as some tips for getting the most from them. And in our official *Macworld* review (see page 78), we'll tell you whether those new features make a better iTunes.

## New Views

Previous versions of iTunes gave you one main way to view your music and video collection: via a columned list. Now, iTunes gives you two more views: an album view and something called Cover Flow. In both, tracks are grouped by album, and you can navigate your collection by clicking on your albums' cover images.

But songs don't always display correctly in these two views. Sometimes, iTunes will mistakenly display tracks from a single album as though they were on multiple albums.

For example, you may have an album by one main artist—such as Santana—who joins forces with a guest artist for some songs (in Santana's case, that would be pretty much anyone else in the music industry). In that instance, iTunes 7 may display each Santana-and-guest song as a separate album. The fix is to select all the tracks on the album, choose File: Get Info, and make sure that the Album field is the same for all of them. If that field is blank, the selected tracks have different album names, and you'll have to type the album name you want. Then, also in the Get Info pane, enter the name of the main artist in the Album Artist field; leave the Artist field blank.

Greatest hits, tributes, and other album compilations can also stump iTunes. Again, it may split up such compilations into multiple albums. To put things right, select all the tracks that belong to a particular album, choose File: Get Info, choose Yes from the Compilation pop-up menu, and click on OK.

## Cover Art

To take advantage of the new Cover Flow and album views, you need album art. The new version of iTunes

## Cover Flow: View Tricks

**There's more to iTunes 7's interface than you think.**

**Scroll Through Your Collection** In Cover Flow, use your mouse's scroll wheel to quickly flip through your library, cover by cover. The faster you spin your wheel, the faster the flipping will be. You may have to adjust your mouse's scrolling speed if you want to see just one album cover per scroll click.

**Include Podcasts** You can browse podcasts in Cover Flow if you create a smart playlist defined as Podcast Is True.

**Toggle the Album Column** Whatever view you're in (list, album, or Cover Flow), clicking on the Album column now cycles among three options: Album (in which albums are sorted alphabetically by album title), Album By Artist (in which albums are grouped by artist and then listed alphabetically), and Album By Year (in which albums are grouped by artist and then listed chronologically). Those last two options are particularly nice for playing whole albums at a time and keeping artists together.

gives you several ways to get that art, but getting it isn't always easy.

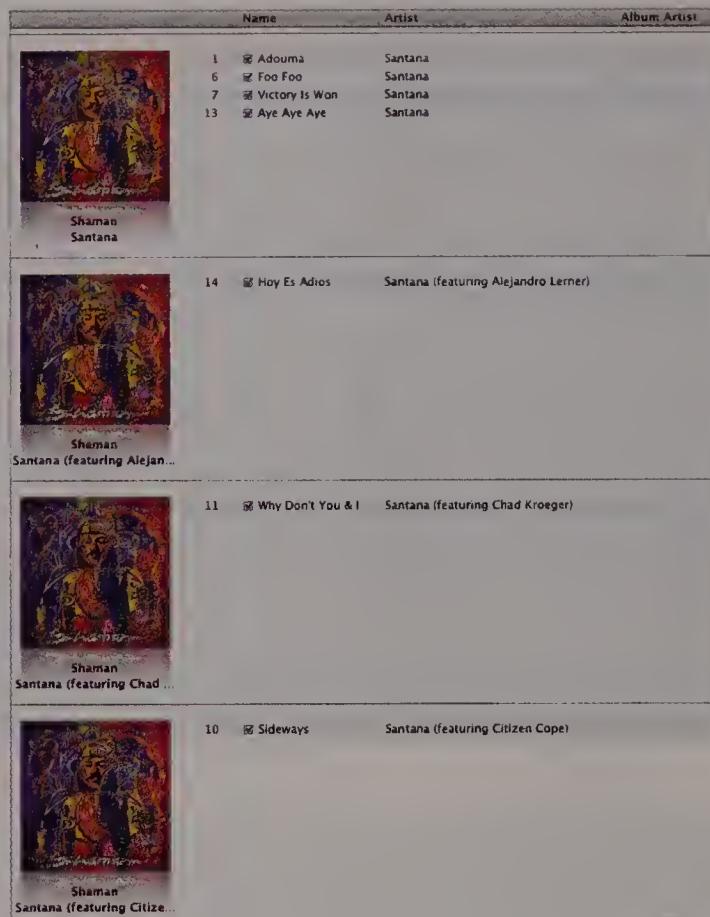
The basic process is simple: If you choose Advanced: Get Album Artwork, iTunes will search through your entire library for missing artwork and download the album covers for your artless tracks from its online database. If you want artwork for just a specific selection of songs or albums, select them in any of the three views (hold down the shift key to select a range of songs or albums, or hold down ⌘ to make a noncontiguous selection), and then control- or right-click on that selection and choose Get Album Artwork from the contextual menu that appears.

But there's a catch: iTunes 7 will get artwork only for albums it has in its online store. So if your collec-



**Go with the Flow**  
iTunes 7's Cover Flow view lets you flip through your albums cover by cover.

**One Album, Many Artists** In the album and Cover Flow views, iTunes may split up albums with multiple artists (left). The fix: Specify a single Album Artist (right).



tion is full of artists who aren't in the iTunes Store, you're going to be looking at a lot of blank album covers. If you want cover art for those albums, you'll have to go out and grab some artwork yourself.

Thankfully, there are countless utilities—such as the Amazon Album Art widget (free; [www.widgetfoundry.com](http://www.widgetfoundry.com)) or Utilitunes (\$5; [www.exspectatorsoftware.com](http://www.exspectatorsoftware.com))—to help you do this. Or you can do it on your own: After selecting a track, search online for an image of the album cover. (Amazon.com and Wikipedia are particularly good sources for finding album covers; 300 by 300 pixels is the optimal size.) Find the best cover image you can, control- or right-click on the image, and select Copy Image. Next, select File: Get Info in iTunes, click in the Artwork box (or, if you've selected only one track, click on the Artwork tab), and then control-

Name	Artist	Album Artist
1 Adouma	Santana	Santana
6 Foo Foo	Santana	Santana
7 Victory Is Won	Santana	Santana
13 Aye Aye Aye	Santana	Santana
14 Hoy Es Adios	Santana (featuring Alejandro Lerner)	Santana
11 Why Don't You & I	Santana (featuring Chad Kroeger)	Santana
10 Sideways	Santana (featuring Citizen Cope)	Santana
12 Feels Like Fire	Santana (featuring Dido)	Santana
13 Aye Aye Aye	Santana	Santana
14 Hoy Es Adios	Santana (featuring Alejandro Lerner)	Santana
15 One Of These Days	Santana (featuring Ozomatli)	Santana
16 Novus	Santana (featuring Plácido Domingo)	Santana

right-click to paste the copied artwork there. If the coverless song is currently playing, you can also drag and drop the artwork from your browser into the Now Playing pane.

Even if an album or song *is* in the iTunes Store, iTunes may not download its cover art. For example, if you've changed the genre of a track so that it differs from the genre the store has on file, iTunes won't find the art. The same goes for other metadata: If what you have doesn't agree with what iTunes has, you may not get your art. You can either adjust your metadata so it agrees with iTunes' or go the manual route and copy over artwork yourself.

If, for whatever reason, iTunes goofs and downloads the wrong art (or you want to replace what's there), you can delete an album's cover art by selecting all the songs in the album and then either control- or right-clicking and choosing Clear Downloaded Art, or choosing File: Get Info and deselecting the check box next to the Artwork field.

If you add a video that you ripped from a DVD you own (using a program such as HandBrake) to your iTunes library, and if that DVD has the same name as an album, you may run into problems with artwork. For example, you may have ripped the DVD of U2's *Rattle and Hum*, but you already have the CD of that album in your library. When you look up the DVD in your Movies library, it may appear with the CD's artwork. The Selected Items pane at the lower left of the iTunes window may be correct, but the Cover Flow graphic may not be.

## Party Shuffle: More iTunes 7 Tips

Keep track of the songs you skip, maintain multiple iTunes libraries, and more.

**Skipping Records** iTunes 7 keeps track of when and how often you skip a song (by clicking on the Next button). The Skip Count view option keeps track of how many times you've skipped to the next track within the first 19 seconds of a song. (Skipping backward or using the mouse to begin playing a different song doesn't count.) The Last Skipped view option shows you the last time you skipped a track. These new view options have no history before

iTunes 7, so iTunes 7 will track only those songs you've skipped since you installed it.

You can use these two options to create smart playlists of tracks you don't like to listen to. For example, you could create a smart playlist with the criterion Skip Count Is Greater Than Number, where Number is any number you choose. To get rid of tunes you've been skipping, select them and press ⌘-option-delete to immediately expunge them from your library.

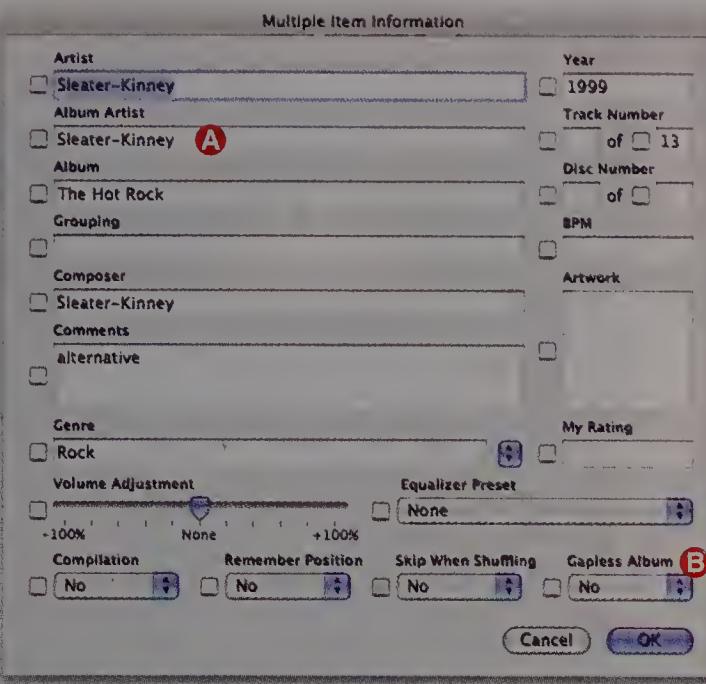
**How Fast?** When you're waiting for your latest purchases from the iTunes Store to arrive over the Net, you can monitor their download speeds in the Downloads section. Click on the gray text under one of the songs that hasn't yet started to download. When you do, it will change from "48.2 MB of 402.3 MB - 24 minutes remaining" to "48.2 MB of 402.3 MB - (15.3 kb/sec) 24 minutes remaining"—a simple way of checking your download speeds.

One way to fix this is to change the CD's name. In this case, you could change *Rattle and Hum* to *Rattle and Hum* with a space at the end of the name. The correct art should now display in the Cover Flow view.

## Gapless Playback

Some albums—live and classical albums, particularly—were meant to be played continuously, with one track flowing seamlessly into the next. Unfortunately, iTunes has never been very good at handling these kinds of albums. The best it could offer was the Join Tracks feature, which you had to implement *before* you ripped a CD. And unless you did a bunch of geeky fiddling with iTunes' Chapter Tool and scripts, there wasn't any way to navigate to individual songs within those joined tracks.

Gapless playback in iTunes 7 is supposed to fix that by automatically detecting albums and groups of tracks that should play seamlessly and



playing them back without audible gaps between tracks. But sadly, iTunes' automatic detection does not always work.

Normally, this won't be a problem; when you're listening to an album, iTunes now plays all tracks as though they're gapless. (Only true gapless albums will sound gapless, though; tracks on other albums have built-in dead air at the ends.) But if you've enabled iTunes' Crossfade feature, the tracks on your gapless albums will be, well, cross-faded. To avoid this, select the tracks on the album and then choose No in the Gapless Album drop-down menu in the Get Info window.

Keep in mind that if you want to play albums gaplessly on your iPod, only fifth-generation iPods (with the latest iPod software update) and second-generation iPod nanos support gapless playback. No other iPods can use this feature. □

**Senior Editor CHRISTOPHER BREEN** is the author of *Secrets of the iPod*, fifth edition (Peachpit Press, 2005), and *The iPod and iTunes Pocket Guide* (Peachpit Press, 2006). Senior Editor DAN FRAKES is also the senior reviews editor at Playlistmag.com. Senior Editor ROB GRIFFITHS edits the Mac OS X Hints Web site ([www.macoshints.com](http://www.macoshints.com)).



**Looking for Art** Need cover art for an album? Select the album tracks, control-click, and then select Get Album Artwork.

You can now start watching a video or movie from the iTunes Store before it has finished downloading. In the Downloads pane (click on Downloads in the Store section), double-click on the downloading item you want to watch. It will open and start playing, even as the download continues.

**Open a New Library** Maybe you have a massive music collection. Maybe you're planning on buying a bunch of movies from the iTunes Store and wonder if you have the hard-drive space to store them. In either case, it can be handy to keep your iTunes collection in multiple libraries. iTunes 7 lets you. Launch iTunes while

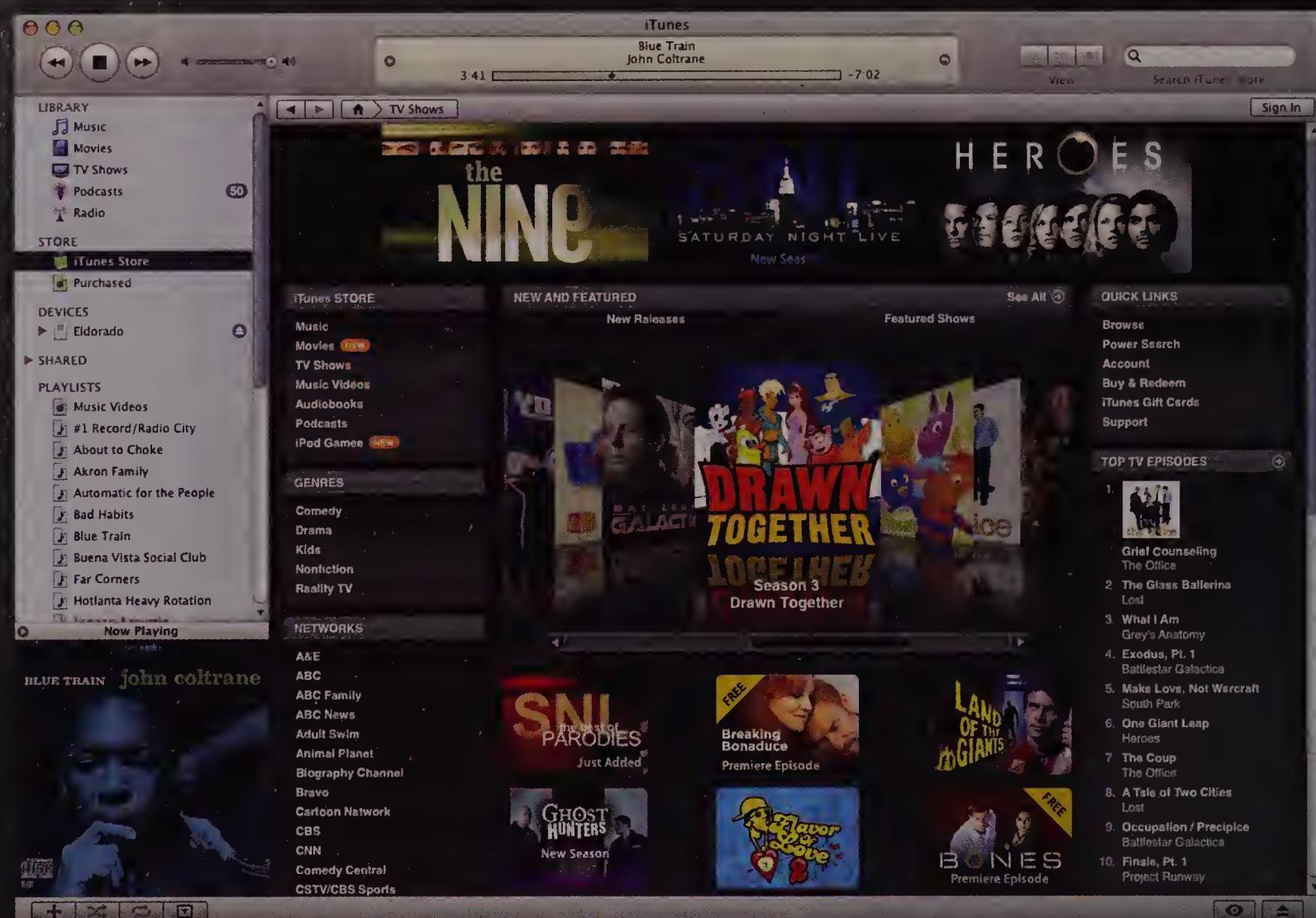
holding down the option key. A dialog box will appear, asking you to choose an existing library, create a new library, or quit the program. Once you've created multiple libraries, you'll need to hold down the option key while launching iTunes whenever you want to switch between them.

**Easy Backups** The new iTunes makes it easy to back up your collection. When you select File: Back Up To Disc, you can choose to back up your entire library, just your store purchases, or just the items that have changed since the last backup. iTunes can back up only to recordable CDs or DVDs, so you can't specify an external hard drive as the backup destina-

tion. The program will, however, automatically split your library into chunks appropriately sized for the selected media.

**Convert Smart Playlists** One of the niftiest things about the new Source list is that it lets you quickly convert a smart playlist to a regular one: just drag the smart playlist from its position in the Source list until it's directly over the Playlists entry, and then drop it. iTunes will create a new regular playlist containing the current contents of the smart playlist; the only difference is that the new playlist won't update itself. The original smart playlist will remain as it was, so you won't lose anything in the process.

**More Information**  
The new Multiple Item Information window in iTunes 7 includes several handy new fields, including Album Artist **A** and Gapless Album **B**.



## REVIEW:

# New Look for iTunes 7

Rough Edges Mar Significant iTunes Enhancement **By Christopher Breen**

iTunes 7.0.1 includes enhancements to many of iTunes' existing capabilities, as well as some groundbreaking new features. Those enhancements and new features make for a better and brighter iTunes, but I'd still like more—specifically, more stability and refinement.

## The Look

Apple has given iTunes a much-needed interface overhaul. In version 7, the color scheme has been muted to include more gray than aqua. Some buttons have been squared off and moved to new locations while others, such as the EQ and Visualizer buttons, have disappeared entirely. Apple has abandoned the button bar above the main window, which allowed you to filter the contents of your library by type (Movie, Podcasts, TV Shows). Instead, iTunes 7 returns to including subcategories within the Search field at the top of the window. Click on the magnifying-glass icon and you can confine your search to Album, Artist, or Song, for example.

### RATING:

**PROS:** More-organized interface; album and Cover Flow views; gapless playback; tighter iPod integration.

**CONS:** Can be unstable with third-party plug-ins, applications, and hardware; artwork isn't always updated completely; doesn't recognize many compilation recordings.

**OS X COMPATIBILITY:** 10.3 (Panther), 10.4 (Tiger)

**PROCESSOR COMPATIBILITY:** Universal

**PRICE:** free

**COMPANY:** Apple Computer, [www.apple.com](http://www.apple.com)

The overhaul is also reflected in a reorganized Source list that includes Library, Store, Devices, Shared, and Playlists entries. Within that Source list, a Downloads entry will appear when you're downloading something from the iTunes Store. Click on the Downloads entry, and you'll discover that you can pause downloads—useful when you want to give

HIGHLY RECOMMENDED  
Buyings.com All



live



loud

small in size and big in sound, all iHome systems reinvent your iPod experience. compact yet sleek, powerful yet astonishingly clear, each iHome system features the crystalline sound of Reson8™ Speakers, a charging dock fit for all docking iPods (including nano), and an individualized design to suit your life-sound-style, at home or on the go.

iH5. clock radio companion with Wake to iPod/Sleep to iPod functionality. moonlights as clever home stereo. iH31. grab-n-go boombox. perfect for beach blasting or picnics in the park. sound good? visit [ihomeaudio.com](http://ihomeaudio.com) for more info.

Available at:

Apple Store Brookstone  
OfficeMax RadioShack. Tweeter

**iHome**™  
[www.ihomeaudio.com](http://www.ihomeaudio.com)



download priority to a TV show that you want to watch right away and then allow your usual collection of podcasts to download later.

### The Views

iTunes 7 comes with two new views that let you navigate your music and video collection: an album view and a lazy-Susan-like artwork browser termed Cover Flow. Album view displays the album artwork on the left side of the pane, with the tracks on the right. Cover Flow places album artwork at the top of the pane in a fanned-out arrangement. You can move from cover to cover via the scroll bar and its arrow icons or use your keyboard's arrow keys. You can also search within Cover Flow by typing the name of the item you seek.

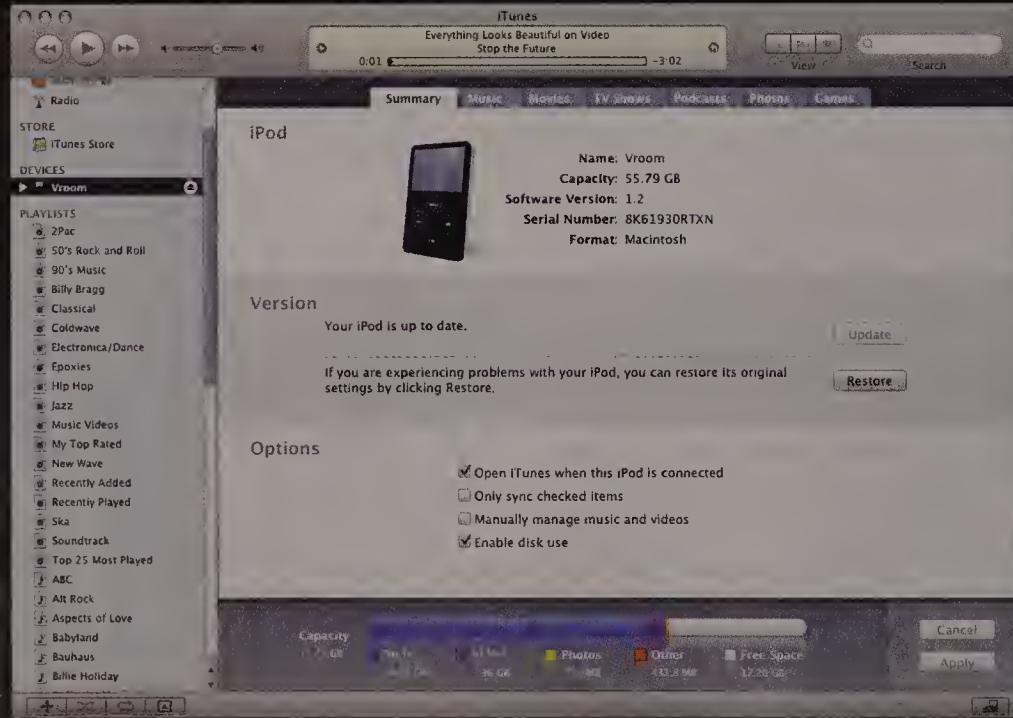
For these views to be useful, you must have artwork for your albums. iTunes 7 can automatically obtain some of that artwork—even for items that you haven't purchased from the iTunes Store. As long as you have an iTunes account and an active connection to the Internet, iTunes will attempt to retrieve artwork for any albums and videos in your library that are also in the iTunes Store's catalog.

In practice, this doesn't work as well as it should. For example, iTunes is completely ignorant of compilation albums that weren't purchased from the iTunes Store. And, of course, if an album isn't available from the iTunes Store—got any Beatles or Led Zeppelin in your collection?—iTunes won't find any art for it.

Also, iTunes doesn't seem to get all the artwork at one time. On the first go-around, iTunes retrieved about half the artwork. I had to tell it to try again so I could get more of it. I'd like iTunes to be a bit more intuitive about albums and their artwork.

Once the artwork is in iTunes, it really is a handy reminder of what's in your library. Cover Flow's ability to let you casually browse, rather than perform a specific search, is its strength.

**iPod HQ** Now you can manage all of the details about your iPod directly within iTunes.



### Mind the Gaps

The album and Cover Flow views are great additions to iTunes, and the gapless playback feature adds to the program's new luster. In the past, iTunes and the iPod inserted a small slice of silence between tracks—even tracks that were intended to flow directly into one another. iTunes 7's gapless playback feature fixes this long-standing problem; it seamlessly switches between tracks on classical, jazz, and concept albums that I have in my iTunes library.

### Interacting with the iPod

Apple has better incorporated the iPod into iTunes. To begin with, the redesigned iPod preference pane reflects what's on your iPod through a Capacity gauge at the bottom of the window. There, you can see how much of your iPod's capacity is consumed by audio, video, photos, and other data, as well as how much free space is left on the iPod.

Apple has now built its iPod Updater software into iTunes 7. You no longer have to launch a separate program to update or restore your iPod; it's all done within the Summary tab of the iPod preference pane, which shows up in iTunes' main window when you plug your iPod into your Mac. And when there's a new version of the updater, iTunes offers to download it and update your iPod. To finally have this tool available within the application you use to manage every other aspect of your iPod is a nice convenience.

### Growing Pains

Out of the gate, iTunes 7 seems to have more problems than its predecessors. Numerous online forums detail concerns about slow performance and crashing. In my own experience, I found that iTunes 7 became unstable when I used third-party plug-ins. Although Apple isn't responsible for policing the activities of developers who write plug-ins for iTunes, the company could have the iTunes installer disable third-party plug-ins and then notify users that it's done so.

### Macworld's Buying Advice

Is iTunes 7 truly the most significant enhancement to iTunes since Apple first introduced the program? A more organized interface, the new album and Cover Flow views, gapless playback, and tighter iPod integration hint that it is. But its premiere release isn't without problems. Thankfully, any reservations I have about the program might be erased with an update. When that update comes, iTunes will earn its rightful place as the program's most significant and enjoyable enhancement. (For a more detailed review of iTunes 7, see [macworld.com/1766](http://macworld.com/1766).) □

CHRISTOPHER BREEN is a senior editor at *Macworld*.

# Lifting your music to new heights!



**Sitting 42" tall. Made of high quality extruded aluminum. With 100 Watts of Peak Power, a 5.25" dedicated subwoofer and a 10 Key Remote.**

**The All New-Visually Stunning mStation 2.1 Stereo Tower™ is an amazing example of form and function coming together to produce a product that is as pleasing to the eyes as it is to the ears.**

**MSRP \$329.95**

**\*\*Online And In Stores Now!**

**mStation™**

[www.mStationAudio.com](http://www.mStationAudio.com)

\*\*Purchase online at [www.mStationAudio.com](http://www.mStationAudio.com) or check our website for a list of Recommended Retail Partners. \*iPod Sold Separately.

# Diagnose Hard-Drive Disaster

Without warning, your Mac is on the fritz. System crashes occur every time you click your mouse, or worse, your Mac displays a gray screen at startup. You feel panic. Is your hard drive dying and taking your data with it? Maybe not. There are a few tricks you can try that may save the day. Sit down. Take a deep breath. Read on.

## Why Good Drives Go Bad

All your data is written on and read from your drive's magnetic media surface. Depending on the age and quality of the drive—and how often it's used—bits of media may flake off this surface. It doesn't happen frequently, but when it does, you can no longer write to that segment or *block*, and you lose the data on it. Mac OS X offers some protection: if it can't access a segment, it will automatically *map out* that block (make it unusable). This feature isn't fail-safe, though—a block may go bad after your Mac has written something to it.

Drives can also suffer mechanical failure. As a drive reads and writes data, the platter spins and the drive head moves. If one of these parts fails or the power supply stops working, you have a dead drive.

**Saved by Zero** Disk Utility's reformatting option checks for bad blocks and maps them out.

## Look for Symptoms

Drives don't always fail catastrophically. For instance, when a block goes bad, you may still be able to read from it occasionally. Likewise, a stuck drive may start

to spin after it's been on for a few minutes. Consider yourself lucky—there's still time to save your data.

You typically discover bad blocks when reading from or writing to them, but the symptoms depend largely on what that block contains. If it's a document, it might fail to open. If it's core system software, system crashes may occur (although it can be hard to tell whether that's due to media damage or software problems such as a corrupt directory).

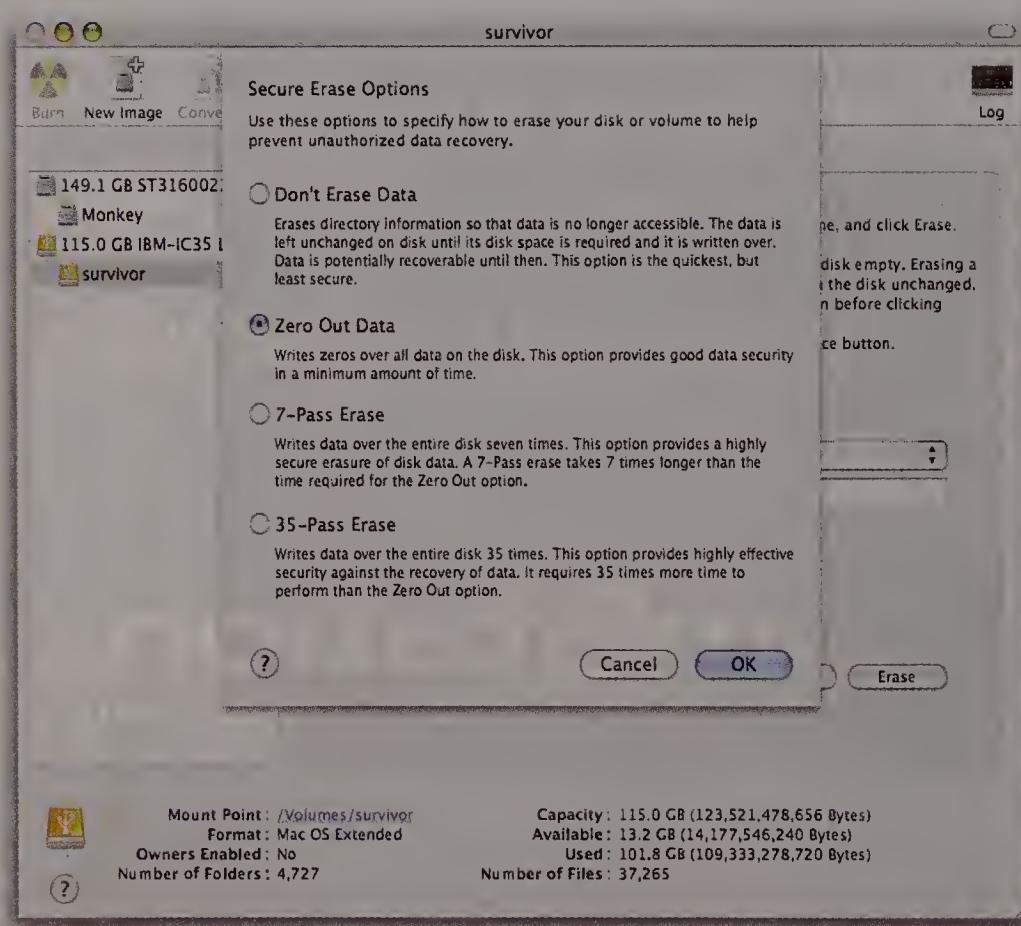
Other clues that there's a hardware problem include frequent crashes within a variety of programs and unusually long application-launch times. Strange sounds can also tip you off; a drive that's on its last legs might make disquieting grinding or clicking noises. If a drive is dead, you'll hear nothing but eerie silence.

## Back Up and Recover

If your drive exhibits symptoms, try and save all critical files that you haven't already backed up—to DVD, a second drive, or other media. It's easiest to drag and drop files via the Finder. Don't overwrite an existing backup—you may end up replacing a good backup with a corrupted one. And back up *immediately*. If you do *anything* else, data recovery may become impossible.

If the defective drive is the one you use for startup, you may have trouble booting up from it. In this situation, it's best to start up from another bootable hard drive rather than a system CD or DVD. Using a hard drive will make it easier for you to recover files and choose which disk-repair utility to launch, because you retain Finder access. To boot from an external drive, you first need to install OS X on it. (If you have an iPod, you may be able to set it up as a bootable drive; see "The Return of iPod Booting" at [macworld.com/1680](http://macworld.com/1680).)

Connect the external drive and then restart your computer while holding down the option key. Use the arrow keys to select the external drive in the Startup Manager screen that appears. Hopefully, the problem drive will mount as a secondary disk and you can copy data from it. If it doesn't, launch Disk Utility (/Applications/Utilities), select the drive (provided it's listed), and click on the Mount button.



No luck? You may be able to save files through data-recovery software. Prosoft Engineering's \$100 Data Rescue II (; [macworld.com/1213](http://macworld.com/1213)) can locate and recover files on a damaged drive, even when the drive itself is beyond repair. The process can take a while and it may or may not work, depending upon the nature of the damage, but it's worth a shot.

## Test Your Drive

It's time to determine the cause of your problems—and whether you can solve them.

**Get SMART** Self-Monitoring Analysis and Reporting Technology (SMART) keeps tabs on a hard drive (primarily media problems), and most current drives support it. To check a drive's SMART status, launch Disk Utility. Select the drive (not one of the partitioned volumes listed underneath), and look for its SMART status at the bottom of the window. A Verified status means that the drive passed its SMART tests. Not Supported indicates that your drive does not permit SMART testing. An About To Fail message is a sign that it's time to get a new drive.

**Run Apple Hardware Test** This test can check for problems with various hardware components, including your drive. How you access this software varies on different Macs. For recent models, insert the Mac OS X install disc, restart, and hold down the option key (on PowerPC Macs) or the D key (on Intel Macs). Click on the Apple Hardware Test icon when it appears. In the Hardware Tests tab, click on Quick Test (PowerPC) or Test (Intel). Unless the test reports a problem with storage, your drive is probably fine.

**Try TechTool Pro** Micromat's \$98 TechTool Pro 4.5.1 ([www.micromat.com](http://www.micromat.com)) can also check for hardware problems, including bad blocks. (Go to [macworld.com/1759](http://macworld.com/1759) for compatibility information.) Select Tests from the toolbar and then click on the Drives tab. Click on the Show Drive Tests disclosure triangle to reveal the different tests, and select Surface Scan from the list. This test can find and report the number of bad blocks on a drive, but it can't repair them. If the utility finds bad blocks, your drive might be on the way out (for more on this, continue on to "Diagnosis: Hardware Failure").

## Repair the Software

If your problem drive passes these hardware tests, it probably has a corrupt directory rather than physical damage. Try Disk Utility's First Aid or an application such as Alsoft's \$80 DiskWarrior 3.0.3 (; [macworld.com/1160](http://macworld.com/1160)). (At press time, DiskWarrior wasn't compatible with Intel Macs.)

To repair your drive using First Aid, launch Disk Utility and select the troubled volume. In the First

# Last Resorts

If all efforts to save your hard drive have failed and you still have critical unrecovered files, here are some last-ditch options:

**1. Contact a Pro** Services such as DriveSavers ([www.drivesavers.com](http://www.drivesavers.com)) may be able to recover data, using techniques that aren't available to laypeople. (Contact such a company before attempting to reformat the drive). The downside is the cost. Fees in excess of \$2,000 are not unusual.

**2. Try Extreme Means** Don't want to shell out for professional help? You may be able to unstuck the drive long enough to recover your data. Make like the Fonz and try giving the drive a medium-size whack (when it's not running). Alternatively, try putting it in the freezer. (Heat expansion can cause a drive to get stuck; the cold air might contract it again.) Remember, these are last-resort measures. Try them only if you're planning to trash the drive anyway.—TED LANDAU AND CHRISTOPHER BREEN

Aid tab, click on the Repair Disk button. If you're repairing your startup disk, you'll need to boot from a different volume, such as a Mac OS X installation disc. (For more about Disk Utility repair, see "OS X First Aid" at [macworld.com/1681](http://macworld.com/1681).)

If Disk Utility detects and fixes the problems, hopefully you're home free. If it fails to detect any problems, reinstall Mac OS X using the Installer utility's Archive & Install option. If DiskUtility reports problems but can't fix them, try reformatting, which erases all data, using its Partition command—the preferable way to reformat a drive when bad blocks aren't an issue.

Launch Disk Utility, select the drive, and, in the Partition tab, click on Partition.

## Diagnosis: Hardware Failure

What if all your software repair attempts fail or your tests indicate a hardware problem? Here are the most common courses of action to take (for a more desperate approach, see "Last Resorts").

**Reformat the Drive** If the drive is still responsive, you may be able to reformat it. Just make sure any bad blocks are mapped out. Launch Disk Utility, select the drive, and, in the Erase tab, click on the Security Options button. Select Zero Out Data (see "Saved by Zero"). Click on OK and then on Erase. Warning: If reformatting works, your success may be short-lived. Symptoms will return if new blocks turn bad.

**Ditch It** Sadly, discarding a drive is a common way of dealing with drive failures. If your drive is under warranty, contact the maker; otherwise, you'll need to replace it. At this point, drive repair is often impossible. □

Senior Contributor TED LANDAU is the founder of MacFixIt ([www.macfixit.com](http://www.macfixit.com)), where he writes a regular column.

# Never Rip Again

Although Apple has sold more than 1.5 billion songs through the iTunes Store, most of the tunes that most people listen to come from the CD collections they've amassed over the years. But ripping those CDs into iTunes can be a time-consuming process—especially if you decide to reimport your music later (because you want a different bit rate or because a better format has come along).

## playlist

Want more tips on digital music? For iPod- and iTunes-related expert advice and breaking news, as well as reviews of all the latest gadgets, check out [playlistmag.com](http://playlistmag.com).

For instance, you may want to put AAC files on your iPod, you may want MP3 duplicates of your songs to use with music-streaming hardware such as Slim Devices' Squeezebox, and you may want the highest-quality files possible when you use AirTunes to listen to music on your home stereo. It may be time to consider Apple Lossless encoding—and never have to rip a CD more than once.

### Why Lossless?

If you've ever expanded a compressed file set—a Zip file or a StuffIt archive, for example—you know that what you get after expansion is exactly the same as what was put into the archive: complete photos with no quality loss, documents with exactly the same text or data, and so on. This idea of *lossless* compression can also be applied to music. In iTunes 4.5, Apple added the Apple Lossless Encoder (ALE) to its encoding repertoire. Lossless encoding creates files that are from 30 to 70 percent of the size of uncompressed AIFF or WAV files, but it does so without compromising sound quality (something that *lossy* encoding schemes such as AAC and MP3 can't do).

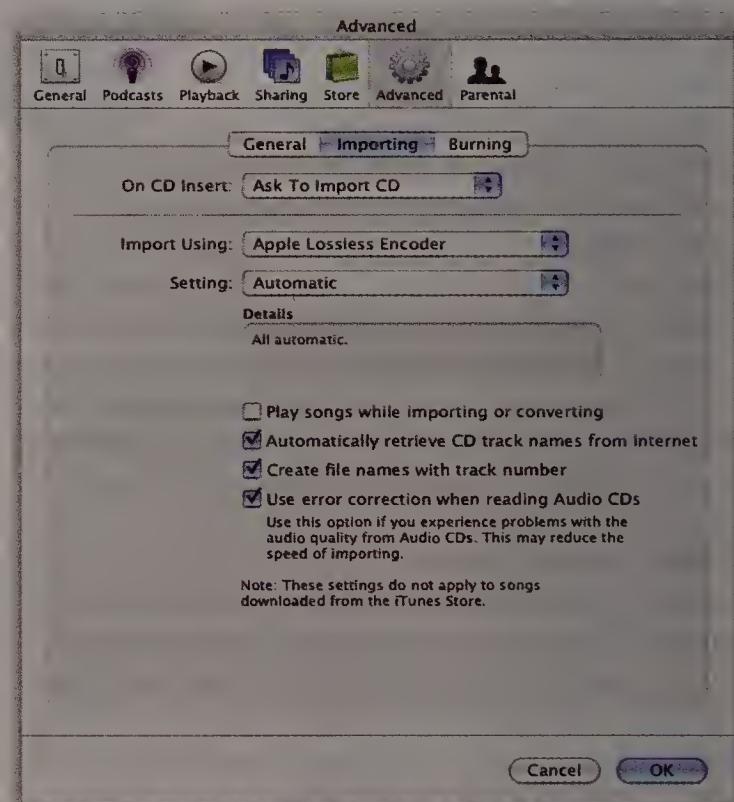
Ripping your CDs as lossless files is useful in a few ways. The sound quality of lossless files is equal to that of your original CDs—so they're good for listening to on a home stereo and for creating mixed CDs. Lossless files take up less space than uncompressed files. And they give you the option of creating other compressed versions of your songs.

Although compressed, lossless files are still much larger than typical AAC and MP3 files. Their size can be a problem with iPods, on which space is limited (but keep in mind that iPods' capacities continue to increase). However, size is much less of a concern on your Mac. The days of expensive storage are long gone; you can buy a huge internal hard drive for relatively little money—up to 750GB for around \$350—and external drives cost only a bit more. ALE compression rates vary based on the complexity of the music, but with an average of 300MB per album, you could put the equivalent of 1,000 CDs on a 300GB hard drive—plenty of room for most collections.

### Ripping Lossless Files

You probably know that you can set iTunes' encoder to rip to different formats. To rip lossless files, go to the Importing tab of iTunes' Advanced preference pane, select Apple Lossless Encoder from the Import User pop-up menu, and rip your CDs as normal (see "Rip for Life"). Unlike with AAC or MP3 files, you don't choose a bit rate for lossless files. If you've already ripped a CD in a different format, iTunes will ask whether you want to replace the existing files. Click on Don't Replace to tell iTunes to store both copies of the files. Typically, iTunes imports lossless files faster than compressed files, since your Mac's processor doesn't have to do as much work to compress the music. The lossless files will be larger than lossy files, but everything else about lossless files is the same. You can change tag information, add album art, and include lyrics, for example.

Once you've imported lossless files, it's easy to use them to create files in other formats. Go back to continues



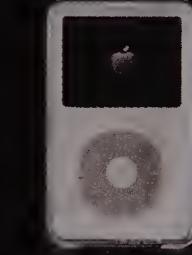
**Rip for Life** Select Apple Lossless Encoder to rip CDs as lossless files that you can later convert to almost any format.

# iSkin



## Beauty of nano proportions.

Introducing the all new iSkin for the second generation iPod nano.  
One of the many innovative iSkin protectors for iPod.



Claro for iPod with video.



SiLo for iPod nano.



Vibes for iPod nano.



eVo3 for iPod with video.

iTunes' Importing tab and change the format and bit rate to your liking. Then pick the lossless files you want to convert (if you're converting many files, add them to a playlist first and then select them), and choose Convert Selection To Format Name from iTunes' Advanced menu—iTunes will create new files in your selected format while keeping the original lossless files in your library. Converting a lot of files can take a long time, so you might want to encode overnight if you're converting hundreds of songs.

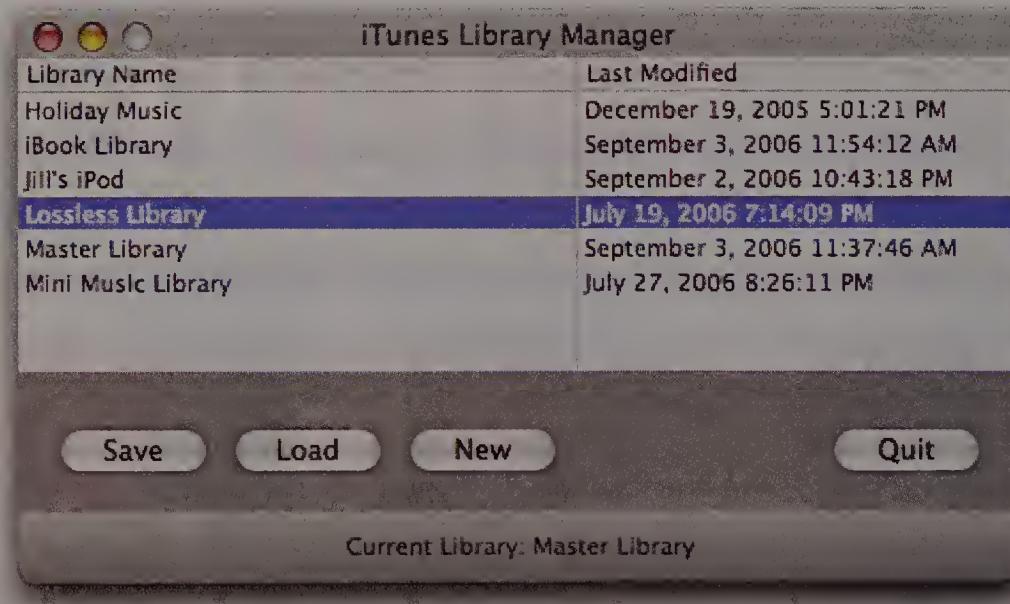
You can convert the lossless files into as many formats as you need: 128 Kbps AAC files for an iPod nano, higher bit-rate AAC files for an 80GB iPod, or MP3 files for a streaming device or non-Apple music player. (If you want to burn a CD from lossless files, just create a playlist of the songs you want and start burning—you don't need to convert them to AIFF, since iTunes does this on-the-fly as it burns the disc.)

### Working with Multiple File Formats

If you decide to go the lossless route, you'll need a strategy for managing the same music in multiple formats in your iTunes library. There are two ways to do this: you can store all your files in the same library and then use playlists to separate them by format (helpful for copying the right versions to your iPod), or you can create a second library.

If you often play lossless files (on your home stereo, say) the two-library solution is your best bet—when you want to listen to music, you can just switch to your lossless library. With iTunes 7, you can now create multiple libraries without the need for a third-party app. To access the feature, you hold down the option key when you launch iTunes to create or choose a library. Although I'm glad Apple added support for multiple libraries, I prefer using a different application—such as Doug Adams's iTunes Library Manager 5.0.1 (\$10; [macworld.com/1017](http://macworld.com/1017)) or Steve Roy's Libra 2.1 (payment requested; [macworld.com/1685](http://macworld.com/1685))—that stores not only the locations of your songs and playlists, but also your individual iTunes preferences with each library. iTunes 7 doesn't keep separate preference information.

**Make a Change**  
With iTunes Library Manager, you can create many different iTunes libraries and then easily switch between them.



## Beyond iTunes Conversion

iTunes lets you convert Apple Lossless files to many other formats. But what if you want a format that iTunes can't handle, such as FLAC (Free Lossless Audio Codec)—a lossless audio format supported by audiophile hardware such as Slim Devices' Squeezebox and Sonos's Digital Music System? Then check out Stephen Booth's Max 0.6.1 (free; [sbooth.org](http://sbooth.org)), an app that converts files to and from Apple Lossless—and more than a dozen other formats. Max works with the formats that iTunes supports, Ogg Vorbis, popular lossless formats such as FLAC and Monkey's Audio (APE), and many others. Max is fast and easy to use, and it lets you tweak your conversion settings as much as you want. More and more audiophile devices offer FLAC support but don't support Apple Lossless. Max can convert your files to work with whatever streaming-audio device you have.

However, all of these files can take up a lot of space. To store the second library's lossless files on an external hard drive, first create a folder for your music on that drive; then go to the General tab of iTunes' Advanced preference pane, click on the Change button next to the iTunes Music Folder Location file-path box, and navigate to the folder you created. After ripping your CDs, you can use one of the aforementioned library managers to switch between this archival library and your primary library.

Getting files into the right library does take a bit of work. You can convert files only when the lossless library is active; then you have to copy the converted files to a central location (drag them from your lossless library to the desktop or to a folder in the Finder)—or try to find them in the iTunes Music folder. When the files are copied, delete the converted files from the lossless library, switch to the library you want the files in, and drag them to iTunes' main window to add them to that library.

Using playlists makes managing your music easier, but you need enough disk space to store both your lossless files and your AAC or MP3 files. If space is no object, playlists are a good choice—you won't have to worry about switching libraries and copying files. To keep the files separate, you can create smart playlists with conditions such as Kind Contains AAC or Kind Does Not Contain Lossless, and then sync the desired playlists with your iPod.

Another option is to deselect the lossless files and then choose Only Update Checked Songs in the General tab of iTunes' iPod preference pane. (To deselect all your lossless files at once, create a smart playlist with the condition Kind Contains Lossless, hold down the ⌘ key, and click on the check box to the left of the name of any file in the playlist.) □

KIRK McELHEARN is the author of several books on the Mac and the iPod, including *iPod and iTunes Garage* (Prentice Hall, 2004). His blog, Kirkville ([www.mcelhearn.com](http://www.mcelhearn.com)), features articles about OS X, the iPod, and iTunes.



Value and performance –  
it's a photo finish.

## Feature-packed units in a small sleek design

Thanks to Brother's new affordable low-profile line of all-in-one color solutions, you can now have color printing, copying, scanning, and faxing, plus digital media compatibility in a unit that fits practically anywhere.

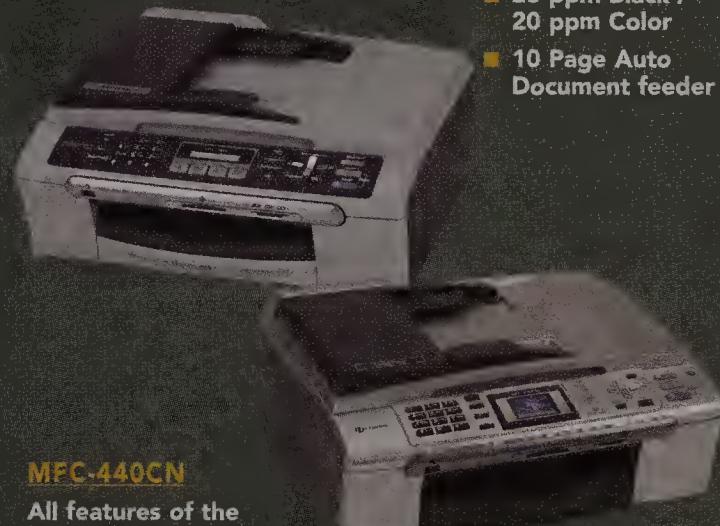
With fast color and black/white inkjet print speeds, all the units come with such productivity features as faxing and auto document feeders that are usually not found on competitive models. To meet various customer needs, certain models include built-in Ethernet networking compatibility, a wireless (802.11b/g) network interface and even a 5.8 GHz cordless handset!

All low-profile models produce sharp, brilliant color output due to print resolutions of up to 6000 x 1200 dpi coupled with their ability to print ink droplets as small as 1.5 picoliters. When used with Brother's Innobella™ Ink Cartridges and Photo Papers, you can accurately reproduce beautiful, radiant color images while simultaneously enhancing image permanence and longevity. A standard photo bypass tray makes it easier to print your photos and regular output without changing paper each time. And on some models, a color LCD allows you to view and print your photos with or without a PC or Mac®.

Small wonder Brother Multi-Function Center® models are picture perfect... in more ways than one.

A VARIETY OF MODELS AVAILABLE AT: Office Depot, OfficeMax, Staples, Fry's Electronics, Costco.com, Brandsmart, PC Richard, MicroCenter, BJ's Wholesale Club, J&R Computer World, CDW, Insight, Techdepot.com, PC Connection, PC Mall, Zones, Quill, PC Nation, TigerDirect.com, Gateway.com, Provantage, Amazon.com, Buy.com, and other fine resellers.

**MFC-240C**  
*Color Inkjet All-in-One*  
■ 25 ppm Black /  
20 ppm Color  
■ 10 Page Auto Document feeder



**MFC-440CN**  
All features of the MFC-240C plus:  
■ 2.0" Flip-up Color LCD  
■ Photo Bypass Tray  
■ Built-in Network Interface



At your side.  
**brother**®

© 2006 Brother International Corporation, Bridgewater, NJ • Brother Industries Ltd., Nagoya, Japan  
\*Resolution is listed as vertical by horizontal. For more information please visit our Web site at [www.brother.com](http://www.brother.com)

# Beyond Apple's Photo Books

With the layout tools built into iPhoto and Aperture, Apple has made it easy to assemble your favorite snapshots in a professionally bound photo book. But Apple isn't the only game in town. Whether you're looking for improved image quality, more-flexible design options, or the ability to mass-market your finished books, there's a book-publishing option that's right for you. Here are three of our favorites.

## Blurb

If you don't use iPhoto, or if you want a book that contains more text than iPhoto allows, Blurb is a great alternative. Like iPhoto, Blurb lets you design the book on your Mac and then upload the finished project. Blurb then binds your project as an 8-by-10-inch hardcover book with a custom dust jacket.

To start your book, download the free BookSmart application from Blurb's Web site, and then point the program to the folder containing the images you want to use. Unlike with iPhoto, you're not limited to photo-intensive layouts. Blurb includes page designs for a wide variety of books, including cookbooks, baby books, and Weblog anthologies.

Each type of book project offers a vast selection of page templates, including designs for a table of contents, quotations, copyright notices, and full-text pages. You can customize each page by dragging images from the My Pictures pane into placeholder boxes on the

**Ideal For:** People who don't use iPhoto; people who want a combination of text and photos.

**Pros:** Good variety of template designs; drag-and-drop interface; customizable dust jacket; other people can purchase your book.

**Cons:** Offers only one book size.

**Contact:** Blurb, [www.blurb.com](http://www.blurb.com)

**Tip:** Before you rush your book out to friends and relatives, order a single copy for yourself to proof the contents and image quality.

page, and then filling out the blocks of text.

BookSmart offers some nice features that iPhoto and Aperture lack. For example, you can choose from an extensive library of photo borders. Although it's still considered beta software, I found BookSmart to be very stable and full featured. BookSmart's weakest point is customization. You can't change the size or the aspect ratio of a picture box, or design layouts from scratch. And like iPhoto and Aperture, BookSmart limits you to a preselected group of fonts.

When you've finished designing your book, BookSmart uploads it to the Blurb server for printing. Prices are comparable to Apple's hardcover books—ranging from \$30 (for up to 40 pages) to \$80 (for 440 pages). Print quality is also similar to what you get with Apple's books; however, the books' full-color dust jackets are a nice finishing touch that you can't get from Apple.

Your book remains on Blurb's server for up to 14 days. In addition to ordering a copy for yourself, you can give friends and family the option of buying your book. Or you can choose to post your book in Blurb's public bookstore, where any visitor to Blurb can buy it. Although visitors can't pre-

view the contents of your book, they can see the cover and a short write-up provided by you. You don't get any proceeds from the sale of your book, but you can let family members and others purchase their own copies of your creations without your having to do additional work.

**Something for Everyone** Each of Blurb's hardcover books (top) come with a full-color dust jacket. Lulu offers not just design freedom, but also a wide range of book sizes, including this 7-by-9-inch softcover (bottom).



# Get a Jump on Your Holiday Cards

The holiday season is right around the corner—and with it comes the annual postal frenzy. This year, get a jump on the crowd with these photo-card tips.

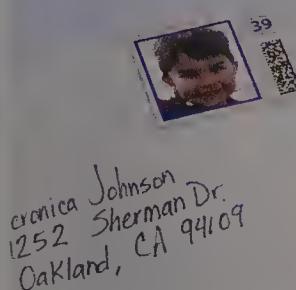
## Group Think

If you'll be taking a family photo for your holiday card, make sure you're capturing everyone at their best. Try to schedule group shots for early or late in the day to take the best advantage of sweet light, or choose a slightly overcast day, which produces soft, diffused lighting. Group everyone as close together as possible, positioning some at a 45-degree angle to vary the composition. If you have some extra time at the end of the shoot, try at least one fun pose from an unusual angle or do a more-casual composition.

## Pick a Card

Although you can order photo cards right from iPhoto, you'll get the best selection of holiday-themed borders and interesting card designs by going online. For cards that really stand out from the crowd, check out PhotoWorks ([www.photoworks.com](http://www.photoworks.com)). Its newest collection of holiday cards has a number of interesting designs, including some that fold out to reveal multiple photos.

**Post It** Elvis and Curious George have their mugs emblazoned on postage stamps—why not Junior?



**Go Crazy** Add a little fun to your holiday photo this year by shooting from an unusual angle. Choose an overcast day for the most-flattering light.

## Let Them Mail It for You

Not looking forward to addressing all of those envelopes by hand? Several online photo services offer to mail out greeting cards for you. Shutterfly ([www.shutterfly.com](http://www.shutterfly.com)) goes one better—it'll import your contacts from OS X's Address Book, saving you a huge amount of time and effort. You can even personalize each recipient's message so it doesn't appear generic.

## Customize Your Stamps

Stamps.com's PhotoStamps application makes it easy to give your holiday cards that extra oomph. The program plugs directly into your iPhoto library, letting you work with images from any of your albums. You choose the stamp's amount. With one click, your stamp is uploaded to the Stamps.com site for purchase. But be prepared to pay dearly for your personalized postage. A sheet of twenty 39-cent stamps costs \$18 ([www.photostamps.com](http://www.photostamps.com)).—SCHOLLE SAWYER MFARLAND, DERRICK STORY, AND KELLY TURNER

## Lulu

If you feel confined by the layouts that iPhoto and Blurb provide, and if you're willing to take on the design work yourself, Lulu's book service offers much more freedom. It can also help you make a bit of a profit from your book by selling it online.

**Ideal For:** People who want to make their books available to a large audience, or who want to make money off of book sales; people who want complete flexibility in the book's layout and size.

**Pros:** Good variety of book sizes; affordable prices; distribution through online bookstores.

**Cons:** Limited design tools included.

**Contact:** Lulu, [www.lulu.com](http://www.lulu.com)

**Tip:** There's an art and a science to designing books well. If you have little or no experience, find a book that you like and use it as a model.

Like iPhoto and Blurb, Lulu lets you upload books for printing. But unlike the other services, Lulu doesn't provide desktop software for designing your book. Instead, Lulu prints books from standard PDF files. This gives you the option of designing your book in any software that can save to PDF—including Adobe InDesign, Adobe Photoshop, Microsoft Word, and Apple's Pages.

Once you've designed your pages, simply select File: Print, and choose Save As PDF from the PDF pull-down menu. (Lulu does offer Web-based tools for designing a photo book, but I recommend skipping them.) The site can be a bit glitchy

with Safari, so I recommend using Firefox to upload and purchase your book.

Lulu offers a wide variety of book sizes and binding options. Softcover books come in nine sizes, including standards such as 6 by 9 inches and 8.5 by 11 inches, as well as more-unusual sizes, such as 7.5 inches square, 6.6 by 10.25 inches (a comic-book format), and 9 by 7 inches (landscape orientation). Hardcover books can have an image printed directly onto a glossy cover, or can come wrapped in a full-color dust jacket. Lulu also gives you the option of selling an electronic copy of your book, which other people can download as a PDF file.

Because of the variety of printing options, Lulu's pricing is much more varied—and more complicated—than Blurb's or iPhoto's. Prices start at around \$5, with each full-color page adding 15 cents and each black-and-white page adding 2 cents. That means, for example, that you can get a 6-by-9-inch book with 150 black-and-white pages for around \$8. Quality-wise, Lulu's books are very similar to Blurb's and Apple's—providing good color and detail.

While you can buy copies of your book for yourself, Lulu's main focus is helping you sell your book to others. After creating your book, you can add a royalty fee on top of the book's cost. Lulu's royalty arrangement is extremely generous, leaving you with 80 percent of the total profit. You can then place your book in Lulu's public bookstore or, even better, in other online bookstores, such as Amazon.com. Lulu will also provide you with a free ISBN (Internat-

continues

## Custom iPhoto Layouts

What if you'd like to stick with the design tools built into iPhoto or Aperture but occasionally need a page design that doesn't quite fit the mold—for example, if you want to overlap text and a photo, or want to add text in a layout that doesn't accept text? If you have an image editor, such as Adobe Photoshop Elements (4.0; [macworld.com/1238](http://macworld.com/1238)), you can create custom pages and then drop them into your iPhoto book.

In your image editor, create a page that is the same size as your photo book and set its resolution to 300 dpi. Design the page as you'd like, including text, photos, and other graphics. When you're done, save the image as a full-quality JPEG, and then add the file to your iPhoto book project. Select the page where you'd like to use the image, and set the Page Type menu to One. Now drag the new image file onto the page. Your custom page design will fill the entire page and print at the same quality as the rest of your book.

tional Standard Book Number), which is required to sell any book commercially.

### Unibind PhotoBook Creator

While the books created by online services such as Lulu, Blurb, and Apple look nice, their print quality can't come close to what you get from a good photo printer. Today's photo ink-jet printers use a more sophisticated printing process, which results in true continuous-tone images. They also give you the freedom to reprint images until you get them exactly the way you want.

Once you have a stack of pages printed, you need a way to bind them. This is where Unibind's PhotoBook Creator fits in. This \$100 device provides a simple, fast, affordable way to create your own hardback books.

To bind a book, first choose which hardback cover you want to use. Covers, sold separately, come in a variety of colors and sizes. You can choose from linen, faux suede, or leather finishes. Some covers

**Ideal For:** Photographers who want to produce books with photo-quality images.

**Pros:** Gives you complete control of print quality and paper selection.

**Cons:** You must have your own printer.

**Contact:** Unibind, [www.unibind.com](http://www.unibind.com) (You can purchase the PhotoBook Creator at LexJet [[macworld.com/2240](http://macworld.com/2240)].)

**Tip:** When designing your pages, remember to leave some room along the left side for the binding. If you print on thick paper, also consider scoring along the front left margin with the back of a table knife to make the bound pages easier to turn.

even offer a cut-out window so you can see a portion of your first page. Prices vary depending on which options you select: a basic linen cover costs \$18. When you order, make sure to select a spine that is big enough to hold all of your pages. Unibind offers guidelines for determining how many pages will fit in a spine. To make the most of your page count, use double-sided photo paper.

Each cover has a special type of glue in the spine. To make a book, you print your pages, stack them inside the cover, and then place the book, spine-down, in the PhotoBook Creator. In about a minute, the machine melts the glue, and your book is bound. The result is an attractive, sturdy, and professional-looking book.

Here's the best part—your book's design isn't set in stone. Later, if you decide you want to add new pages, or if you want to rearrange the photos—to remove snapshots of your ex, for example—you place a finished book in the machine to unbind it, change the contents, and then rebind it. □

**When Quality Counts** By using my Epson R2400 to print images on Epson Enhanced matte paper, I was able to create a portfolio book that really did my images justice. I then placed the whole book in the PhotoBook Creator device to bind the book.



Panasonic offers you a complete digital SLR system.

The Lumix L1 gives you creative control of your pictures with accessories like a PL filter, ND filter, MC protector, and two external flashes. And by employing the Four Thirds System, the L1 allows compatibility with a complete assortment of lenses to give you the ability to customize to your exact specifications.

The digital SLR you've been waiting for is at [panasonic.com/digitalSLR](http://panasonic.com/digitalSLR).

**Panasonic**  
**ideas for life**



BEN LONG is a San Francisco-based writer and photographer. He is also the author of *Getting Started with Camera Raw* (Peachpit Press, 2006).

digital brain.  
analog soul.  
surprisingly well-adjusted.



14-50mm Leica D lens • 7.5 megapixel live MOS sensor • mega optical image stabilization • dust reduction system • Four Thirds™ system • 2.5 inch live view LCD • shoot digital without sacrificing the soul of photography •

The digital SLR you've been waiting for is at [panasonic.com/digitalSLR](http://panasonic.com/digitalSLR).

**Panasonic**  
**ideas for life**

# Create a Time-Lapse Movie

Although you can't fast-forward life (caffeine notwithstanding), you can speed up time in your movies with time-lapse photography. This video technique compresses hours' of action into mere seconds—clouds roll overhead, the sun races toward the horizon, and flowers bloom before your eyes. Best of all, creating time-lapse movies is easy. Once you set up your camera, your Mac does most of the work for you.

Time-lapse movies are made up of noncontiguous exposures taken over an extended period of time. When you play the movie at normal speed, the action is accelerated because those individual exposures—which can span hours or even days—fit into the space of seconds. Apple's iMovie HD 6, which is included with all new Macs (or is \$79 as part of the iLife '06 suite), has a little-known feature for capturing time-lapse video. For even more power—or if you want to use your digital still camera instead of a camcorder—check out Boinx Software's \$40 iStop-Motion (; [macworld.com/1684](http://macworld.com/1684)).

## Set Up Your Time-Lapse Studio

Follow these guidelines when you're setting up your workspace:

**Find a Steady Surface** Camera movement is more pronounced in time-lapse movies, so mount the camera on a tripod. If you're shooting in a high-traffic area, place sandbags around the tripod's legs to hold it in place (bags of rice work well, too).

**Light Your Scene** If light varies dramatically from frame to frame, your finished film will look as though it had been shot under a strobe light. To prevent this from happening, try to keep lighting conditions



### Time-Lapse Studio

I converted one corner of a basement storage room into a time-lapse studio, using two lamps, some poster board, and a little masking tape.

## Fake It

What if you already have some real-time footage that you want to speed up? In iMovie HD 6, select the clip in the timeline and click on the Editing button. Open the Video FX pane and choose the Fast/Slow/Reverse effect. Drag the Speed slider toward Faster, and then click on Apply.

Even at the fastest setting, your scene still may not pass quickly enough to suit your needs. To work around this problem, export the speeded-up clip as a full-quality QuickTime movie, and then reimport the file into iMovie. You can now apply a double dose of the Fast/Slow/Reverse effect.

consistent for the duration of your shoot. If you can, shoot your movie indoors, where you'll have much more control over your lighting. For the best results, augment the room's overhead lights with a two-light setup: a good directional light (such as a spotlight or a swing-arm lamp) as your main light source, and a softer fill light (such as a table lamp) to lighten shadow areas (see "Time-Lapse Studio").

If you shoot outside, give your scene a more consistent tone by choosing an overcast day or erecting a temporary shelter, such as an umbrella attached to a tripod.

**Supply Power** Since you'll be shooting over a long period of time, make sure your camcorder is relying on its AC adapter—not its batteries—for power. If you're using a laptop, make sure it's plugged into a power outlet.

## Prepare Your Camcorder

Most camcorders turn themselves off if they're not actively recording. To disable this feature, remove the camcorder's MiniDV tape. You'll be saving your footage directly to your Mac's hard drive, so you won't need the tape for this project.

Next, connect the camera to your Mac's FireWire port, turn your camera on, set it to recording mode, and launch iMovie. The scene you're shooting should continue

# You don't put limits on your creativity.

(Why should your technology?)



## Apple® Mac Pro

- Dual-core Intel® Xeon® Processor (2.66GHz)
- Memory: 1GB DDR2 DIMM
- NVIDIA GeForce 7300 GT
- 250GB SATA hard drive
- 16X SuperDrive™
- Mac OS® X Tiger™

**\$2499**  
CDW 1025372



Authorized  
Reseller



Dual-core.  
Do more.



## Apple® Final Cut® Express HD

- Powerful DV/HDV editing
- Composite easily in-canvas
- Perform advanced color correction

\$299 CDW 983895



Authorized  
Reseller

## The Mac Solutions You Need When You Need Them.

You'd like to spend as much time as possible focusing on your creative work. CDW has the solutions that let you do just that. Our account managers can help you find the products you need to keep the creative process going faster and more efficiently. So call today for detailed answers to all your technology questions, and get back to focusing on what you really enjoy: creativity.



The Right Technology. Right Away.™

CDW.com • 800.ALL.MACS



### Spring Forward

In my time-lapse film, a bouquet of lilies blooms in mere seconds. I posted the finished movie on YouTube ([macworld.com/1741](http://macworld.com/1741)).

appear in iMovie's monitor area. If it doesn't, click on the Camera Mode icon beneath the monitor and select your camera's name from the menu.

Using the image in iMovie as a guide, adjust the camera's position to frame the subject, accounting for changes that may take place over the course of the shoot—such as expanding flower petals. Finally, turn on the camcorder's manual-focus feature (if you use the autofocus mode, the resulting video may bounce because the camera tried to focus while shooting).

### Shooting with iMovie HD 6

To activate iMovie's time-lapse feature, click on the Camera Mode icon and choose Time-Lapse from the pop-up menu (see "Almost Hidden").

In the dialog box that appears, click to enable the time-lapse feature, and then enter the rate at which you want iMovie to capture video frames. This will require a bit of math. Each second of digital video is made up of 30 frames. So if you wanted to capture one frame per second, you'd enter 30 here (that's one captured frame for every 30 possible frames of video). To capture one frame per minute, you'd enter 1800.

To start recording, click on the Import button in iMovie (if you're using an iSight, you'll click on the Record With iSight button). iMovie adds each captured frame to a clip in the Clips pane. To stop recording, click on the Import button again. Then simply move the clip (or clips) to iMovie's timeline and edit just as you would any other video clips. (You can also record directly to the timeline: open iMovie's

Import preference pane, and enable the Movie Timeline option in the Place Clips In section.)

### Getting More Options with iStopMotion

Although nifty, iMovie's time-lapse feature is pretty bare bones. For more control, I recommend using iStopMotion. The program offers an intuitive interface and extensive controls for creating time-lapse and stop-motion videos. Unlike iMovie, iStopMotion doesn't force you to pull out your calculator when you want to set your frame-capture rate. Instead, you just open the Options pane, enter a shooting rate, and specify if the value is in seconds, minutes, or hours.

Don't own a video camera? You can add Boinx's \$20 Still Camera Plugin, which lets you use your digital camera to capture a time-lapse movie's frames. This way, you can take advantage of your still camera's higher resolution (a 5-megapixel camera can capture images at 2,592 by 1,944 pixels, while a MiniDV camcorder captures images at only 720 by 480 pixels) and advanced image controls for better-looking movies. If you're willing to pony up \$349 for the HR version of iStopMotion, you can even use that extra resolution to create HD-quality time-lapse movies. Otherwise, the program scales down the finished movie to standard DV resolution. (The Still Camera Plugin doesn't support all cameras; download the free trial version to see whether your camera is compatible.)

After you've shot your movie in iStopMotion, export the masterpiece as a DV file (for easy import into iMovie) or as a QuickTime movie.

### Share Your Time-Lapse Movie

Once you've finished your movie, share it with other people. One of the most popular ways to share video these days is through YouTube ([www.youtube.com](http://www.youtube.com)).

To post your video to YouTube from iMovie, select Share: QuickTime, and then choose Web from the Compress Movie For pop-up menu. Go to YouTube's site, sign up for a free account (if you don't already have one), and click on Upload. Enter a title and description for your movie, and add any relevant keywords—include the keywords *timelapse* and *time-lapse* to be sure your movie is included with other time-lapse movies. Choose a category from the list provided, and then click on the Continue button. On the next page, click on the Choose File button, locate your movie file, and then click on the Upload Video button. In a few minutes, your video will be available to the world. □



**Almost Hidden** The control for invoking iMovie HD's time-lapse feature is accessible from the Camera Mode pop-up menu A.

JEFF CARLSON is the managing editor of TidBITS ([www.tidbits.com](http://www.tidbits.com)) and the author of *iMovie HD 6* and *iDVD 6 for Mac OS X: Visual QuickStart Guide* (Peachpit Press, 2006). He maintains an iMovie and iDVD blog at [www.jeffcarlson.com/imovie](http://www.jeffcarlson.com/imovie).

AWARD-WINNING  
PERFORMANCE AND DESIGN.



**LACIE d2 HARD DRIVE EXTREME : DESIGN BY NEIL POULTON**

Macworld called it "an excellent choice" with "great performance," and "impressive test results." This trusted, durable hard drive, designed exclusively for LaCie by the world renowned designer, Neil Poulton, offers high capacities and comes with FireWire 800, FireWire 400 and USB 2.0 for universal connectivity. With extremely fast max sustained transfer rates of up to 64MB/s, it's ideal for professional audio/video editing, graphic design and easy automatic system backups. [www.lacie.com](http://www.lacie.com)

Triple Interface | 160GB - 500GB\*



High design. High performance.

## Encrypt Files for Safety

True story: A friend of mine—a programmer I'll call Annie—came home one day to find her new town house burglarized. Among the stolen items was the PowerBook she used for work. While she hoped that the thief would simply junk or erase the hard drive, there was no way for Annie or her employer to be sure that the many office and personal files she had on the PowerBook hadn't been compromised.

Within days, Annie had a replacement MacBook Pro, and she asked me to help her set it up so she wouldn't have to endure that anxiety again. My proposed solution: an encrypted folder, where she could store her most sensitive files.

Encrypted data is thoroughly scrambled and can be unscrambled only with the correct password. The best encryption methods—known as *strong encryption*—make it essentially impossible to decrypt data, no matter how much trickery or brute force the thieves use.

Encrypted folders are particularly good if you carry your data around on a laptop. In the office, you can often copy confidential files to a secure server, and you have other security tools (like locked doors and server-based backup systems) to protect your data. When you're carting your livelihood around in a shoulder bag, you're better off building the security into it.

Fortunately, Mac OS X has some powerful built-in encryption tools. It has included FileVault—which encrypts your entire Home folder—since version

10.3. But few Mac owners use FileVault, and security experts agree that it's overkill, because it's clunky and less than foolproof, and because it's kind of silly to encrypt all your music, photo, and video files along with your *truly* confidential documents.

Your Mac also includes a less blunt instrument: Disk Utility. With it, you can create encrypted disk images that act (in most respects) like regular folders, except for one big difference—they won't mount unless you supply the correct password; when unmounted, they're digitally scrambled. You can even set up such an encrypted folder to open automatically (with a password) whenever you restart or log in to your Mac. You can then put only the files you *really* need to protect into that encrypted folder, while leaving your iTunes and iPhoto libraries, browser cache files, and less sensitive documents alone.

Here's how to create such a folder and set it to open only with the proper password. (You must be running OS X 10.4.)

### Create Your Disk Image

First, launch Disk Utility (/Applications/Utilities). Choose File: New: Blank Disk Image. Choose a maximum size for your folder; I use 4.7GB, so even if I fill up the disk image, I can still burn it to a DVD-R. Under Encryption, choose AES-128 (the only encrypted option). From the Format pop-up menu (near the bottom of the New Blank Image dialog box), choose Sparse Disk Image. Give your encrypted disk image a name in the Save As field, and choose a storage location on the hard disk. I called mine Cryptobaby.sparseimage and saved it in my Documents folder. When you're done with all of that, click on the Save button.

Now it's password time. When the Authenticate dialog box appears, choose a password. Many of us choose bad passwords—we use obvious words or number sequences that anyone with a bit of patience, intelligence, and password-cracking software could figure out.

That's why you should press the key button next to the Password text box. Doing so will sum-  
continues



### CHECK IT OUT

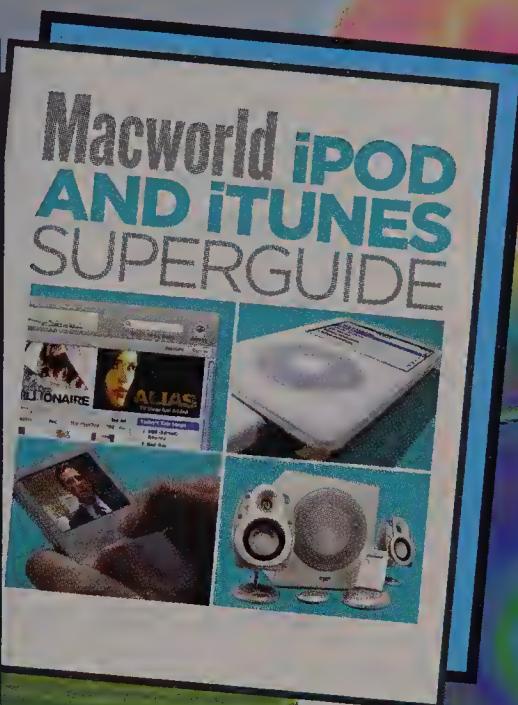
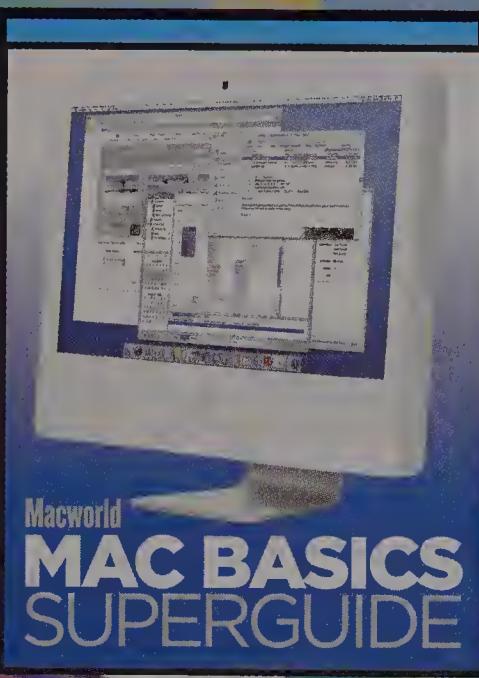
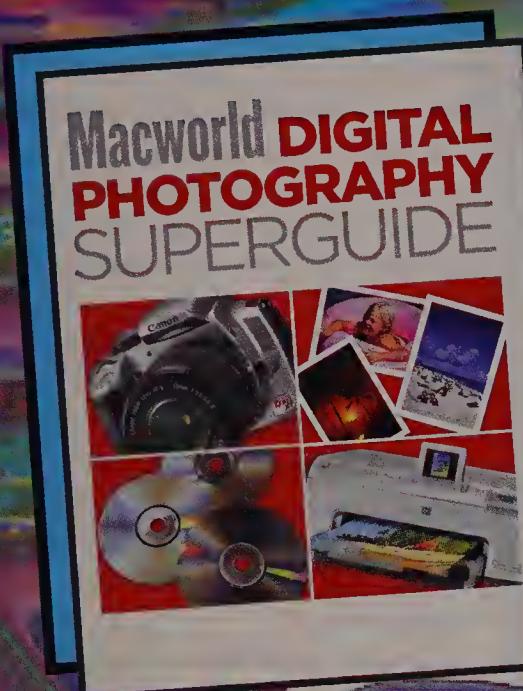
#### Folee XM System

I've never been a fan of one-strap shoulder bags; I generally prefer the ergonomic goodness of backpacks. But with its combination of svelte size and lots of storage space, Booq's \$230 Folee XM System ([macworld.com/1617](http://macworld.com/1617)) just might win me over. Surprisingly small for a bag that accommodates Apple's midsize laptops, the Folee XM nevertheless provides 17—yes, 17—pockets for files, folders, iPods, cables, adapters, phones, and more. (And that's not counting the main laptop compartment.) The organizer section is hidden behind a panel that won't open by itself but is easy to access with one hand. Most of the outside pockets are padded. Booq also includes one of its Vyper cases, which envelops your MacBook or MacBook Pro in a foam-padded, form-fitting, hard-shell sleeve. The Folee XM's only real drawbacks are that, because of its small size, it won't hold many books, and it doesn't include a pocket for a water bottle.—DAN FRAKES



Even creative experts had to start  
at the beginning...

From baby steps to  
challenging tasks,  
Macworld's Superguides ensure  
your creative journey will be  
exceptionally rewarding.



Whether you're ready to take your creative explorations to a whole new level or you're just getting your feet wet, Macworld's Superguides have the practical advice, tips, and advanced techniques that you need.

Order copies of Macworld's Superguides today!  
Available in PDF (\$9.95\*), Print (\$21.99\*) or CD-ROM  
(\$12.00\*) formats.

**Macworld Digital Photography Superguide**  
[www.macworld.com/0976](http://www.macworld.com/0976)

**Macworld iPod and iTunes Superguide**  
[www.macworld.com/1371](http://www.macworld.com/1371)

**Macworld Mac Basics Superguide**  
[www.macworld.com/1734](http://www.macworld.com/1734)

Smart advice &  
time-saving strategies  
for the music lover -  
photography buff -  
or Mac beginner  
in you.

\*special promotional discount

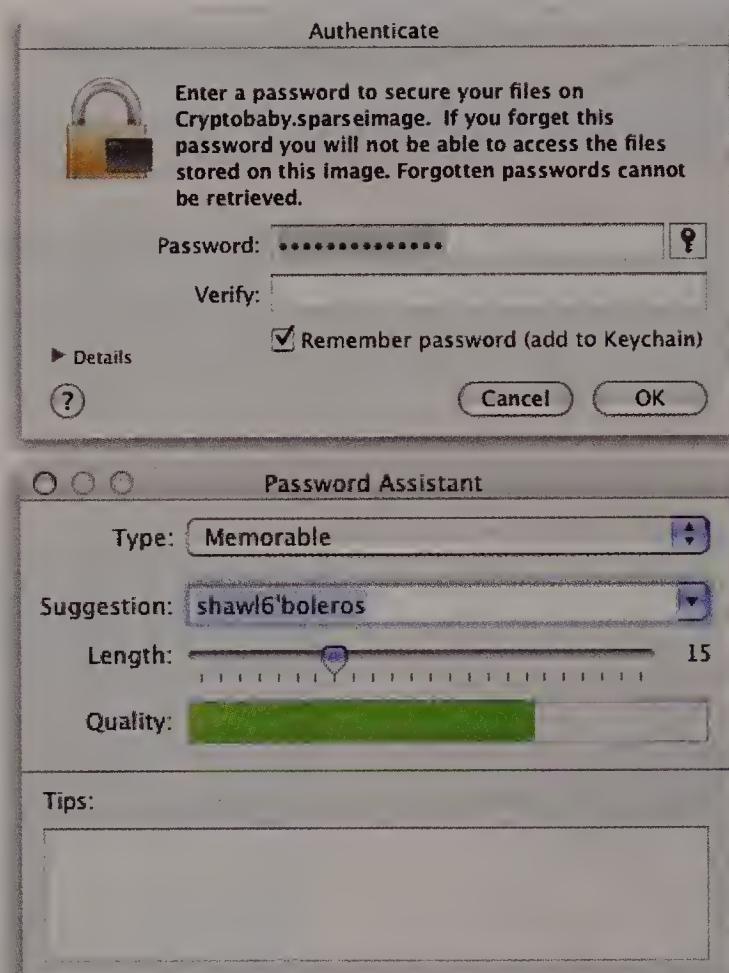
mon Apple's Password Assistant, which will help you generate a good, strong password. In the Type menu, select Memorable (it uses combinations of words, numbers, and punctuation that are relatively easy to remember). You can create shorter or longer passwords by adjusting the Length slider; longer passwords are, obviously, more secure. If you don't like the password in the Suggestion box, click on the down-arrow button to see more. Password Assistant will rate each suggestion in its Quality bar. You can provide your own passwords; Password Assistant will tell you what's wrong with them in the Tips box. If you absolutely must, write down the password and store the paper in a secure place away from your laptop; otherwise, commit it to memory. Remember that if you lose the password, you'll lose the data in the folder.

Once you've picked a password, verify it in the Verify box, deselect the Remember Password option, and click on OK. Disk Utility will save your new disk image wherever you specified, with the name you supplied.

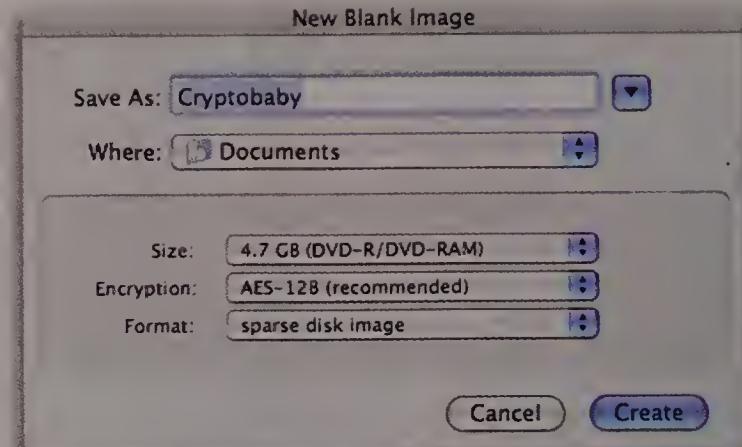
Test your new disk image by double-clicking on it and supplying the password. It should appear as a new disk in the Finder sidebar, just like any other drive or removable disk. The only difference is that when you eject it, the disk image file remains on your hard drive, though no one can read or mount it without the password.

### Encryption in Action

Now that you've created your folder, it's time to put files in it. Since it's a working folder, not an inactive



**A Better Password** OS X's Password Assistant can suggest passwords that are both easy to remember and hard to crack.



**Drawing a Blank** Using OS X's Disk Utility, you can create a blank disk image that's encrypted and password-protected.

archive, you'll be adding files to it all the time. In Annie's case, I suggested she just turn her Work and Personal subfolders in Documents into one encrypted disk image. Your case may be different. Perhaps you just need to protect certain project folders; in that case, those are the only ones you need to copy into your disk image. Subfolders are fine; you just want to make sure you have everything you want to protect, and nothing you don't, in one place. Once you've figured out which files to include, just open your new disk image and copy them into it.

Check that everything works. Eject and try to remount the virtual disk. Log out and back in. Open the files you copied into the virtual disk, to make sure they work properly. Once you've confirmed that your data is safe yet accessible, you can erase the unencrypted originals (or keep backups somewhere else). Choose Finder: Secure Empty Trash to make sure they're really gone.

For maximum convenience, you can add the encrypted disk image file to your login items. That way, it'll open and be available whenever you launch OS X. To do so, choose System Preferences: Accounts and select the Login Items tab. Click on the plus-sign (+) button, select the disk image, and click on Add. (You could also just drag the file from the Finder into the Login Items tab.) Now, whenever you restart or log in to your account, your Mac will ask for your decryption password; once you supply it, the virtual disk will mount. If you choose not to enter the password, you can continue working without mounting the disk image. If you do mount it, you can protect your files by ejecting it at any time—such as when you put your computer to sleep or step away from your desk.

Finally, make sure that whatever backup system you have includes your encrypted disk image, and that those backups are stored off-site.

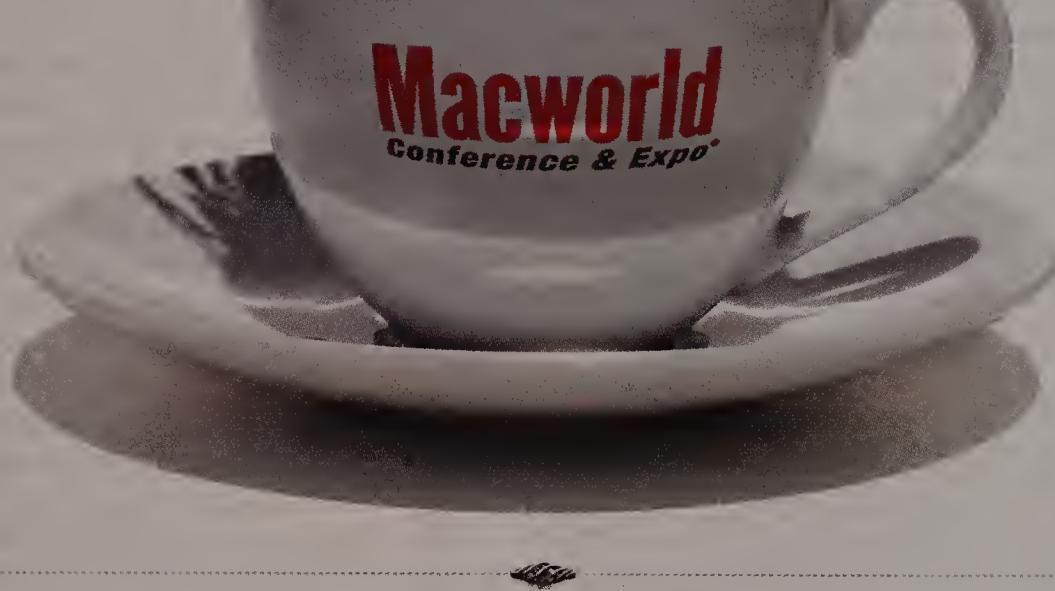
Annie now saves all work-related documents to her disk image. When she goes home, she ejects the virtual disk and puts the MacBook to sleep. Even if her laptop is stolen, or even if she leaves it running on her kitchen table, she knows that no one else can read her confidential files. □

DEREK K. MILLER is a writer, an editor, a musician, and a podcaster who blogs at [penmachine.com](http://penmachine.com).

COOL TECHNOLOGY  
INSPIRED CREATIVITY  
DIGITAL LIFESTYLE

THE MOSCONE CENTER  
SAN FRANCISCO  
**M**  
**SF**

CONFERENCES:  
JANUARY 8-12, 2007  
EXPOSITION:  
JANUARY 9-12, 2007



## Sow Some Inspiration

Give your professional talents and personal initiative some room to grow at Macworld

Conference & Expo 2007. Immerse yourself in five revitalizing days' worth of the largest gathering of Mac industry experts, pundits and enthusiasts. Cultivate fresh skills, nurture new acquaintances and harvest indispensable tools in which to further feed your imagination and fuel your Mac soul.

**Macworld Conference & Expo... where creativity takes root.**

# Inside Network Utility

If you're like most people, you've never taken a look at Network Utility (/Applications/Utilities), one of the free applications that comes with Mac OS X. But for geeks, it can be a useful diagnostic tool, whether you're trying to figure out who *really* sent that e-mail message or you're having trouble getting a Web page to load. Here's a practical look at four of Network Utility's features.

## Whois It From?

When you get an e-mail message that includes a Web address, do you ever wonder whether the URL is legitimate or fake—part of a phishing expedition to con you out of your money? With whois, you can find out. Launch Network Utility and follow these steps:

1. Click on the Whois tab in Network Utility.
2. Enter the suspicious domain name (without http:// or www.) in the text field.
3. Select whois.internic.net from the Please Enter Or Select A Whois Server To Search drop-down menu.
4. Click on the Whois button.
5. If the name and address information you're seeking is listed, you're done. Otherwise, you still have more work to do. Locate the Whois Server line of the output and note the domain name listed. This is the server where the domain name is registered. Copy this name and paste it into the Whois Server To Search text field, replacing whois.internic.net.

Note that occasionally you might see more than one domain name variant listed. A quick whois search of Microsoft.com, for instance, brings up a long list of (sometimes humorous) variants. In this case, you won't see a whois server name in the output. To fix

this, put an equal sign (=) in front of the domain name in the Please Enter A Domain Address text field and then click on Whois again. The resulting output should show the whois server name for each of the variants. Locate the one you want and, as before, copy and paste the whois server name into the Whois Server text field. Delete the equal sign before the domain name before you go on to the next step.

6. Click on the Whois button again.

This time you will likely get the desired results, including the name, the address, and possibly the e-mail address of the person or company who owns the Web domain (see "Who Is It?"). If the registrant isn't whomever you were expecting, you're probably dealing with a fraudulent URL.

## Pinging for Problems

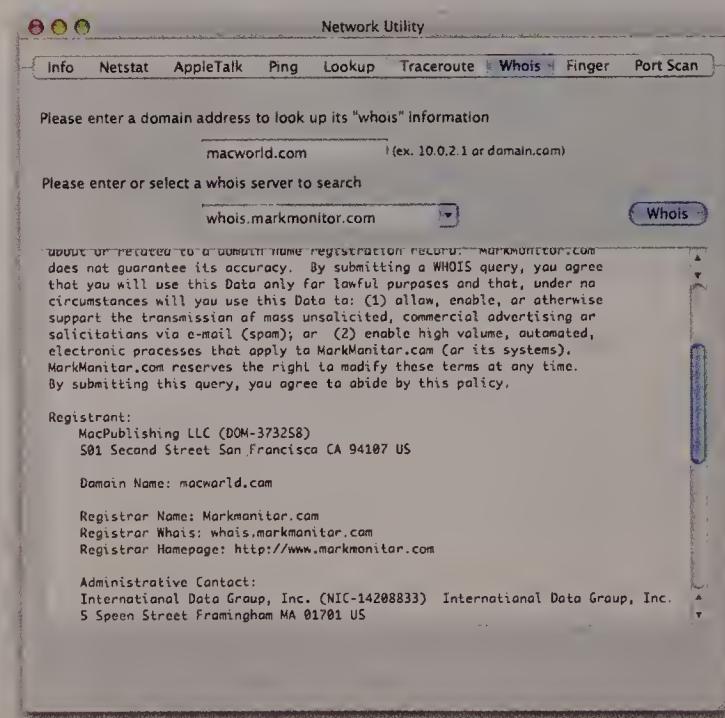
If a Web page just won't load, your inquiring mind might want to know why. If the loading problem is restricted to just the one site, you can use Network Utility to determine whether the likely cause is at your end (perhaps you're using an incompatible browser) or at the site's end.

To do this, you *ping* the site. A ping sends a signal (called a *packet*) to a site and waits for an echo (a response). If you get a response, the site is up and running. Here's how to go about it:

1. Click on the Ping tab in Network Utility.
2. In the Network Address To Ping field, type the domain name for the site (such as [www.macfixit.com](http://www.macfixit.com)).
3. Click on the Ping button.

By default, the tool sends ten pings. The output indicates the response from each ping and how long it took to arrive. If some pings don't come back or take a long time, this suggests the Web site will load more slowly than expected or perhaps not at all. No successful pings means the site is probably down.

There's just one problem with all of this—and it's a doozy. Because malicious excessive pinging can overwhelm a server, some sites (Macworld.com, for instance) block the ping command and refuse to send an echo back. Unfortunately, it can be hard to distinguish whether a failure has occurred because the site is down



**Who Is It?** A Whois search will show you whether a Web site is legitimate by revealing the owner's name, address, and more.

or because it's blocking pings. (You can also use ping to find local network devices [see [macworld.com/2252](http://macworld.com/2252)].)

## Trace It to the Source

Like ping, the traceroute command can help you diagnose site-loading woes. Whereas ping tells you whether your requests are making it to the server, traceroute takes a look at the path your requests travel through the Internet. The command provides a list of all the hops a data packet takes from one router point (or *node*) to another en route to its destination. In other words, it can show you *where* your data is getting lost. To use traceroute, do the following:

1. Click on the Traceroute tab in Network Utility.
2. Enter the domain name in the text field.
3. Click on Trace.

In the output, you'll see a numbered list of all the nodes along the route from your computer to your destination (the domain name you entered). The nodes at the top of the list are geographically closer to your computer. Nodes near the bottom are closer to the destination. Sometimes you'll find that the node names give a further indication of their geographic location. For example, my Comcast cable node is located in Pinole, California, and is listed as `ge-1-1-ur03.pinole.ca.sfbfa.comcast.net (68.87.196.249)`.

If a traceroute request dies near its origin, it suggests the connection problem is at your end (either with your personal Internet connection or with your ISP). That means it's time to contact your ISP. Conversely, if the traceroute dies at the opposite end, it indicates a likely problem at the destination site. In that case, contact the Web site.

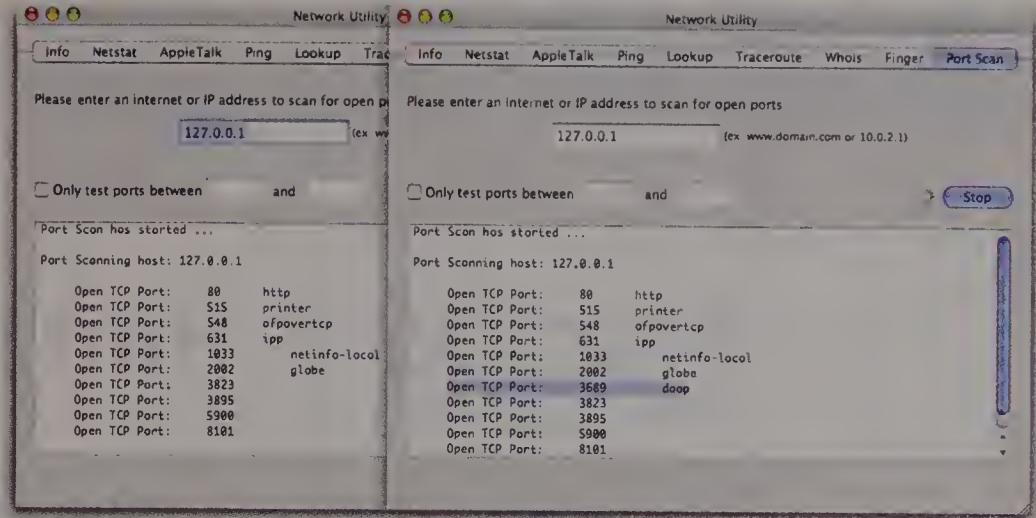
In the unlikely event that a traceroute request dies somewhere in the middle of its route, the Internet itself might be having a problem, which means that you'll probably have to wait it out. You can go to a Web site such as [www.internettrafficreport.com](http://www.internettrafficreport.com) (assuming you can get there) to view the current Internet traffic conditions across the country.

Sometimes you'll see a series of asterisk rows at the end of your traceroute output. It means that the destination site itself blocked your request in order to prevent potential mischief. If this is the case, often the last line of output will end in !X, which means the site administrator has prohibited communication.

## Make Sure the Ports Are Open

Can't share your iTunes library or get an instant-messaging application to connect? In cases like these, a required network port may be closed or blocked.

Unlike the actual ports on the exterior of your Mac, these network ports are virtual. Each different type of Internet task uses a separate port number. For example, Web traffic to your Mac almost always uses port 80. If this port isn't open, no Web pages will load. (For a list of common port assignments, see Apple's guide at [macworld.com/1754](http://macworld.com/1754).)



OS X usually handles routing things to the correct port behind the scenes, but if you're having trouble getting network-related software to work, you may want to check that its port is open. Don't know what port to check? That's where Port Scan comes in:

1. Click on the Port Scan tab in Network Utility.
2. Enter your local address in the text box. For your own Mac, you can typically enter 127.0.0.1 or *name of your computer.local*. (To find your computer's name, go to the Sharing preference pane and click on Edit. Its name is in the Local Hostname field.)
3. Click on the Scan button.

Repeat the scan before and after launching the problem application (see "Port of Call"). If a port appears only in the latter list, that's the one you need to check. In particular, you want to make sure your firewall isn't blocking access to the port. To see if it is, go to the Sharing preference pane and click on Firewall. If it's on, click on Stop to turn the firewall off. Now check the problem software. If the problem is gone, then the firewall was the likely cause.

To get your software to work *and* keep your firewall on, you need to tell the firewall to leave the necessary port open. To do this, add a new entry to the firewall's Allow list:

1. In the Firewall section of the Sharing preference pane, click on the New button.
2. In the sheet that appears, select Other from the Port Name pop-up menu.
3. Type the port number that you found into the appropriate Port Number(s) text field (either TCP or UDP, as indicated in the Port Scan output).
4. Assign a port name (whatever you like) in the Description text box and click on OK.
5. Click on the Start button to turn the firewall back on. Your software should work properly now.

If the problem is with OS X bundled software, there might be an even simpler solution. For example, iTunes Music Sharing requires that port 3689 be open. To do this, you don't need to create a new entry. Instead, scroll down the items already in the Firewall tab's Allow list until you find iTunes Music Sharing, and select this option. ☐

**Port of Call** Running Port Scan before (left) and after (right) launching iTunes (with Music Sharing enabled) reveals that the Music Sharing feature accesses port 3689. If your firewall is blocking that port, you can't share music.

# Mac OS X Hints

The Insiders' Tips You Won't Get from Apple

## Use Screen-Saver Images as Desktop Pictures

Apple ships a number of very nice screen savers with OS X—you'll find them all in the Desktop & Screen Saver preference pane. Some of the screen savers, such as Beach and Cosmos, consist of gorgeous images that appear in sequence, fading and sliding into and out of view. But what if you want to use a screen-saver image as your desktop background? Here's how.

Open a Finder window ( $\text{⌘}-\text{N}$ ) and navigate to *your user folder/Pictures*. Then open another Finder window and navigate to */System/Library/Screen Savers*. The system's screen savers are in this folder. Hiding in *some* of the screen savers are images you can liberate for your own use. Specifically, the following ones contain usable desktop images: Beach, Cosmos, Forest, Nature Patterns, and Paper Shadow.

I'll use the Beach screen saver as an example, but these instructions also apply to the others. Control-click on Beach.slideSaver, and choose Show Package Contents from the contextual menu. When the new window opens, navigate to Contents/Resources, and voilà—there are the images!

The next steps are simple. Decide which images you want to borrow (or press  $\text{⌘}-\text{A}$  to select them all), and then drag and drop them into your open *your user folder/Pictures* folder. Close that folder, open the Desktop & Screen Saver preference pane again, click on the Desktop tab, and select your Pictures folder in the source list. Click on the image you want, and it will appear as your desktop image (see "Beachy Keen").

## More Secrets of the Application Switcher

OS X's Application Switcher provides a handy way to jump between applications. Just press  $\text{⌘}-\text{tab}$ , and a row of icons appears on your screen. These icons represent currently running applications, and they are displayed in order of most-



**Beachy Keen** It's easy to use any of the Apple-provided screen-saver images as desktop backgrounds. Here, I'm hanging out on the beach and enjoying the view.

least-recent usage. While continuing to hold down the  $\text{⌘}$  key, press tab to cycle through them. When you reach the one you want, release the keys, and that program will leap to the foreground.

We covered some Application Switcher tricks in the July 2005 *Mac OS X Hints* ([macworld.com/1710](http://macworld.com/1710)), but we haven't discussed how you can use dragging and dropping with it. Say you want to drag and drop something into aTextEdit document, but you've hiddenTextEdit so you can't see its open windows. No problem! Start dragging the object you want to drop, press  $\text{⌘}-\text{tab}$  to activate the switcher, and then tab over toTextEdit (while holding down the mouse button, so you don't cancel your drag operation). Release  $\text{⌘}-\text{tab}$  whenTextEdit is highlighted, and it will activate and unhide. Now you can drop the item into your openTextEdit document.

But wait—consider the previous example. Only this time, after unhideTextEdit, you discover that you don't have an open document window on screen to accept your dragged item. You might think you've got to cancel your drag operation, create a new document inTextEdit, and then start the process again. But that's not the case. After you switch toTextEdit (that is, after you've released  $\text{⌘}-\text{tab}$  and are still holding your item with the mouse), just press  $\text{⌘}-\text{N}$  to create a new window. Even though you're in the middle of a drag operation,TextEdit will receive the command.



## WHAT'S ONLINE

### > Import Multiple Photo Booth Images

Here are two ways to quickly import all your Photo Booth images into iPhoto at once.  
[macworld.com/1713](http://macworld.com/1713)

### > Show All Files in the Finder

Learn how to force OS X to show all files in the Finder, including normally hidden Unix files.  
[macworld.com/1714](http://macworld.com/1714)

### > Scale to Fit

Scale applications so they take up a little less room on screen.  
[macworld.com/1715](http://macworld.com/1715)

## Text-Clipping Tricks

Many people find that *text clippings*—snippets of text that have been dragged out of applications and then dropped in the Finder somewhere—are an easy way to store tidbits of knowledge they intend to use in the future. And if you're running OS X 10.4, you can perform new tricks with clippings.

### How to Make a Clipping

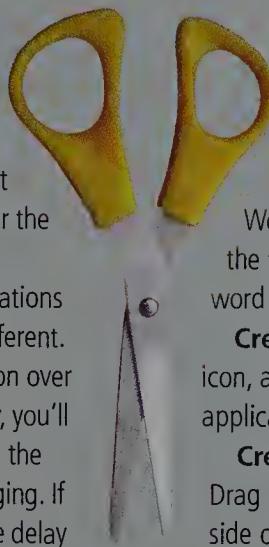
OS X introduced a level of complexity to the simple task of creating a text clipping. How you drag text differs, depending on what type of application you're in. In Carbon apps, such as Adobe Photoshop, the Microsoft Office apps, Mozilla Firefox, and many other converts from OS 9, dragging works as you might guess. Just highlight a block of text, click and hold the mouse over the highlighted block, and then drag it to wherever you'd like it to go.

If the program was written in Cocoa, as most of Apple's applications (includingTextEdit, Mail, and Safari) are, the procedure is a bit different. After highlighting the text to drag, click and hold the mouse button over the highlighted text, but don't start dragging right away. If you try, you'll find that the program will start a new text selection. Instead, hold the mouse button down for about half a second, and then start dragging. If you're not sure which technique a particular app requires, add the delay before trying to drag.

**Clip the Clipping** Unlike in past versions of OS X, when you go to paste your clipping into another application, OS X 10.4 lets you select text *within* the clipping, instead of forcing you to use the entire clipping. Select and copy individual words (by double-clicking on a word) or lines (by triple-clicking anywhere on the line) and then drag.

You're not limited to opening new documents with this trick—you can use any application's other keyboard shortcuts while you're dragging, too. But this works *only* if you've switched to the application via the Application Switcher (or by using Exposé).

Note that you can't drag and drop an object directly onto an application's icon in the Application Switcher—you have to first activate the destination application and then drop your dragged object. If you'd like to drag and drop directly onto Application Switcher icons, you might try Proteron's \$15



### Dandy Dock Drags

What's most handy about text clippings in Tiger is that you can now drag selections of text to application icons in the Dock. This lets you perform a wide variety of tasks more quickly. Here's a sampler:

**Start a New Mail Message** Drag a chunk of text and drop it onto Mail's Dock icon. Mail opens a new e-mail message window with the dragged text in the body of the message.

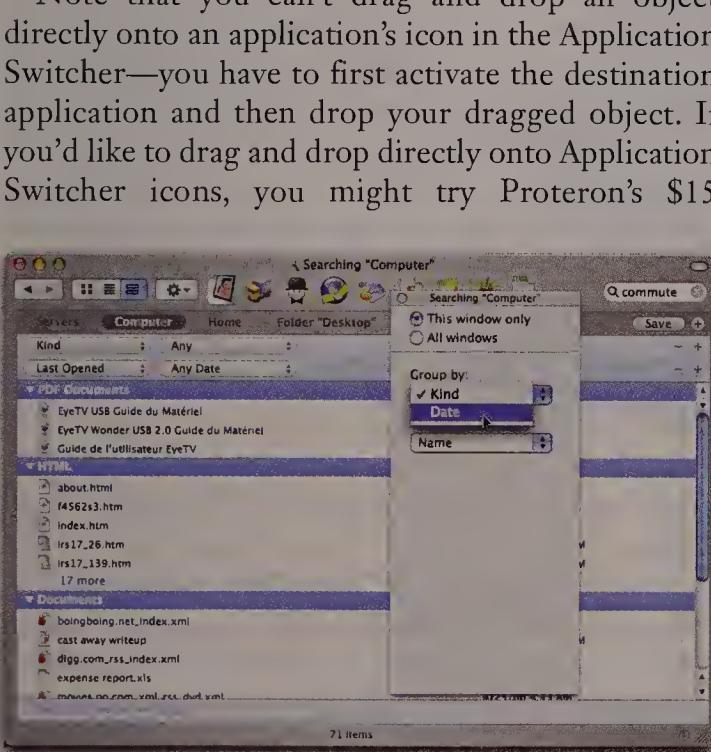
**Start a New Text File** Drop your dragged text onto TextEdit's Dock icon, and TextEdit creates a new document containing that text.

**Run Google Searches** Drag a chunk of text from Microsoft Word onto Safari's Dock icon, and Safari will launch a Google search for the phrase. (In Cocoa applications, you can also just control-click on a word and select Search In Google in the contextual menu that appears.)

**Create a Stickies Note** Drop your dragged text on Stickies' Dock icon, and a new note appears containing that text. (If you're in a Cocoa application, you can also press ⌘-shift-Y to do this.)

**Create URL Shortcuts** Have a short list of sites you always access? Drag and drop each address from Safari's address bar to the right-hand side of your Dock to create a one-click shortcut for that site.

**Quickly Open a Web Page** Occasionally, you may want to see what a Web page looks like in another browser (or you may want to try to open a page in Firefox because Safari is having trouble with it). Highlight the URL in Safari's address bar, click and hold on it, and wait a second. Now drag the selection to another browser's Dock icon to open the page. (You can also drag the address directly to another browser's open window.)



**A Nice Sort** The Finder's search feature (⌘-F) can give you more sorting options for search results. Just press ⌘-J to open the View Options dialog box.

LiteSwitch X 2.6 (; [macworld.com/1711](http://macworld.com/1711)), which provides that useful feature and others.

### Group Finder Search Results

I use the Finder's search feature (by pressing ⌘-F in the Finder) more often than full-blown Spotlight searching (accessed by pressing ⌘-spacebar). As long as I'm relatively specific about what I'm looking for, the Finder quickly produces results that are usually relevant.

But with Spotlight searching, you can do something that doesn't seem possible with the Finder: sort and group search results in a meaningful way.

There is, however, a way to sort and group (in a somewhat limited matter) the Finder's search results. Run your search; then select View: Show View Options (or just press ⌘-J). This will bring up the Finder's View Options dialog box, with some additional settings specific to the search results window (see "A Nice Sort"). Here you can group by Kind or Date, and sort by Name, Date, or Kind. These options aren't quite as powerful as the grouping and sorting options offered in the Spotlight results window, but they're a good start.

### Old-School HomePage Editing

With iPhoto 6 (part of the \$79 iLife '06; [macworld.com/1131](http://macworld.com/1131)), Apple quietly removed a fea-



Have a hint? Go to the Mac OS X Hints Web site ([www.macosxhints.com](http://www.macosxhints.com)) to share it. This column was based on tips from Luke Andrews, Dave Garaffa, Eitan Mendelowitz, and anonymous contributors. Each month, the author of our favorite tip receives the Help Desk mug.

continues



# POWER TIP OF THE MONTH

## Hide User Accounts in Tiger's Login Window

One of the nice things about OS X is that it makes creating additional user accounts easy. So you can have as many as you need—for example, a work account, a troubleshooting account for diagnosing system problems, a gaming account that uses lower screen resolutions and doesn't include startup items, personal accounts for everyone in your family, and even a guest account for visiting relatives. And this is all well and good, but it does lead to one problem—the never-ending login window. Instead of having to pick through accounts in a long list, wouldn't it be great if you could hide the ones you access only occasionally? If you're running OS X 10.4, you can do just that.

If you were brave and bold, you could do this in earlier versions of OS X. But now hiding accounts requires only a quick trip to Terminal (/Applications/Utilities) and the use of one command. To start, you need to know the short name of each account you want to hide. Go to your Accounts preference pane, click on the account name in the My Account column, and look in the Short Name field. Once you've got the necessary short names, open Terminal and enter this command (which you can copy from [macworld.com/1712](http://macworld.com/1712)):

```
sudo defaults write
/Library/Preferences/com.apple.loginwindow
HiddenUsersList -array-add account_name1
account_name2 account_name3
```

In the above example, *account\_name1*, *account\_name2*, and *account\_name3* represent the short names of three accounts to be hidden. You can hide as many accounts as you wish; just separate each short name with a space. Press return when you're done.

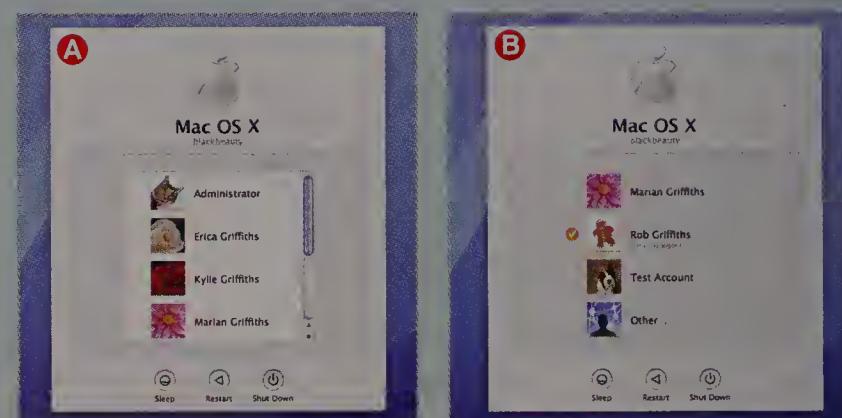
Now log out (Apple menu: Log Out your user name) and take a look at the login screen. You'll notice two changes. First, the user names you hid

won't show any more, and second, there's a new entry: Other. Click on Other, and you'll be able to enter a user name and password to access any of the hidden accounts. Accounts hidden this way also don't show in the Fast User Switching menu (unless the users are logged in).

You can unhide a hidden account by going to Terminal and entering this command (which you can copy from [macworld.com/1712](http://macworld.com/1712)):

```
sudo defaults write
/Library/Preferences/com.apple.loginwindow
HiddenUsersList -array-add
```

By specifying no names in the command, you'll reset the list of hidden users. The next time you return to the login window, you'll see all your accounts again.



**Lean Login** By using one Terminal command in OS X 10.4, you can hide user accounts you use infrequently—turning a messy scrolling login window **A** into a trim, neat one **B**.

ture from the program—the .Mac HomePage button. This button let .Mac ([www.mac.com](http://www.mac.com)) subscribers automatically create online photo albums from an album or a selection of pictures in iPhoto. True, the new iWeb program (also part of the iLife '06 suite) has an integrated photo-page feature. But iWeb is more than many users need. The simplicity of the old HomePage button was hard to beat.



**Photo Albums in a Snap** In previous versions of iPhoto, one button connected you to .Mac's very easy-to-use HomePage tool. In iPhoto 6, that button is gone, but you can still publish a quick online photo album if you know the trick.

My solution is not quite as simple as clicking on a button, but I think it's easier than creating a full site with iWeb. In iPhoto 6, select the photos (or album) that you want to turn into a .Mac photo page. Choose File: Export. Set the Scale Images No Larger Than fields to 800 × 600 or 640 × 480, as you wish (larger images will take longer to upload and use more .Mac disk space). Make sure that the Use Extension option is selected—if the image names don't have extensions, then the .Mac site won't let you use them in an image page. Click on Export. In the dialog box that appears, click on your iDisk in the sidebar, and then click on the Pictures folder. This is where .Mac stores the pictures used in photo pages. Click on New Folder, name the new folder, and click on Create. Click on OK to export the images.

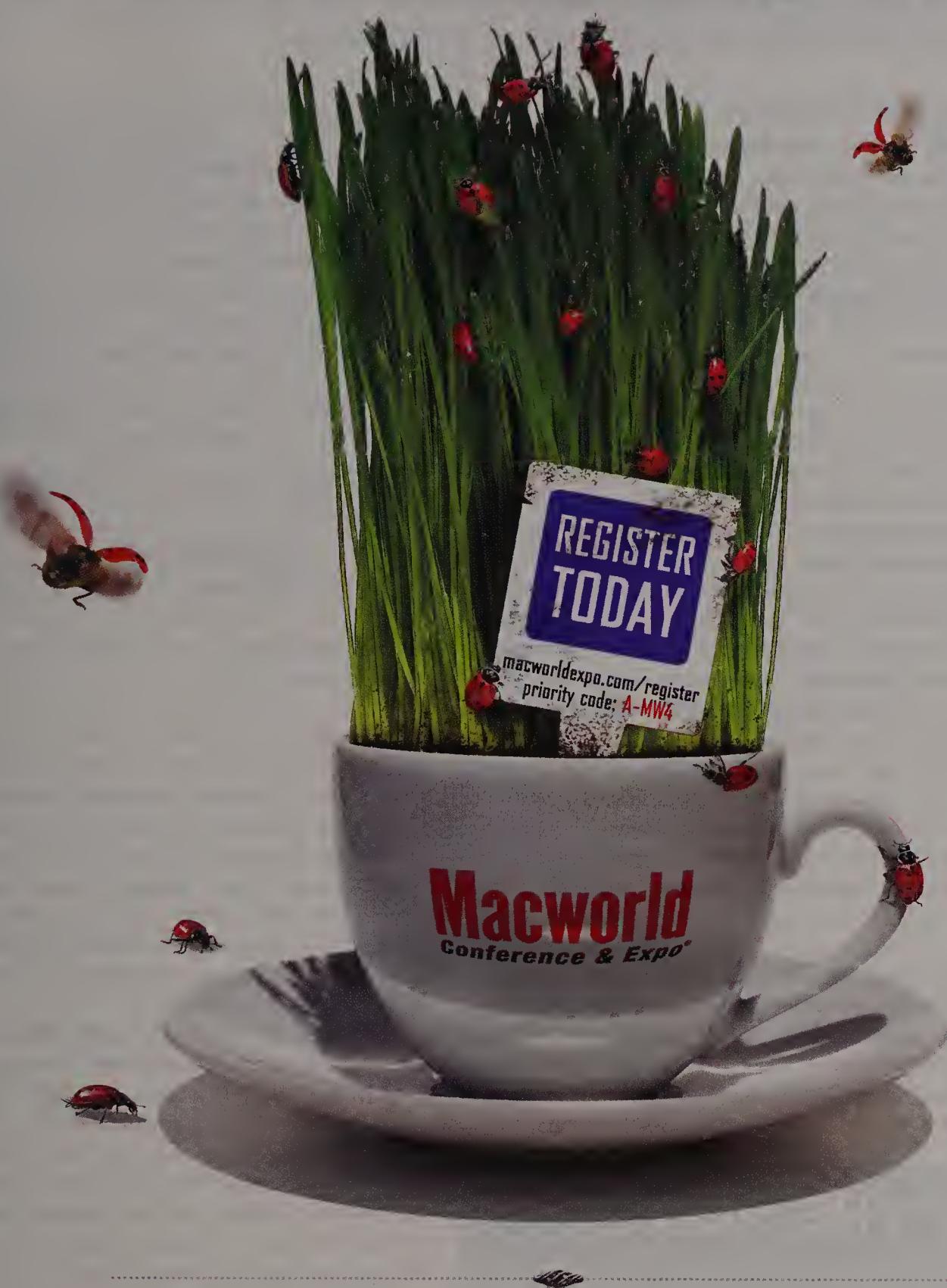
That's all you have to do to export the photos. Next, log in to .Mac to create your new photo page. Click on the My Pages link and select one of the Photo Album styles (see "Photo Albums in a Snap"). When the next screen appears, select (by clicking once) the folder of images you just created; then click on Choose. Fill in the captions and descriptive text and click on Publish—then you're done. □

Senior Editor ROB GRIFFITHS runs the Mac OS X Hints Web site ([www.macosxhints.com](http://www.macosxhints.com)).

COOL TECHNOLOGY  
INSPIRED CREATIVITY  
DIGITAL LIFESTYLE

THE MOSCONE CENTER  
SAN FRANCISCO  
SF

CONFERENCES:  
JANUARY 8-12, 2007  
EXPOSITION:  
JANUARY 9-12, 2007



## Teeming with Innovation

Lose yourself in a swirl of digital discovery and unabashed fun at Macworld Conference & Expo

2007. Take to the floors of San Francisco's Moscone Center to experience fresh demos including the Expo's newest feature, The Digital Lifestyle Experience. Get a grip on new tools (and toys), and be the first to witness the latest announcements. Renew your zeal for everything Mac—while giving your imagination a healthy lift. Macworld Conference & Expo... where creativity takes root.

# Mac 911

Solutions to Your Most Vexing Mac Problems

## Short-Name Shortcut

I recently bought a new 20-inch iMac. Unfortunately, not long after I bought it, my partner and I parted ways. We had been sharing an old Power Mac G4, so I had to transfer my files and information from it to my new iMac. That worked fine except for one glitch: My user account on my new iMac assumed the name of my ex! How can I get the iMac to use my name instead of hers?

Via the Internet

Every OS X user account gets two names: a long one and a short one. The long one is easy to change. First go to System Preferences: Accounts and make sure the lock icon is open; if it isn't, click on it to pull up the Authenticate dialog box, and enter your password. Then, on the Password tab, select the account name you want to change, and enter a new long name in the Name field.

Changing the short name is trickier. You can do it yourself, but it's not easy; see the Apple Knowledge Base article at [macworld.com/1722](http://macworld.com/1722) for details. Or you can use the free ChangeShortName utility, from James Bucanek and *Macworld*'s own Dan Frakes ([macworld.com/1723](http://macworld.com/1723)). If you opt to use this utility, just be sure to read the Read Me document, which explains the risks involved, as well as how to deal with issues such as reactivating third-party Dashboard widgets and reestablishing contact between iPhoto and its picture library.

## Streaming Radio on Intel Macs

I'd like to listen to a favorite sports radio station (560 WQAM, out of Florida) on my Mac, but its Internet stream requires a media player that doesn't work on my Core Duo MacBook. Is there any way to work around this?

Richard Myerly

### General:

Kind: Application (Universal)  
Size: 20.9 MB on disk (17,178,388 bytes)

Where: /Applications

Created: Thursday, February 10, 2005  
3:14 PM

Modified: Tuesday, June 27, 2006 3:12 PM

Version: 2.0.4, Copyright 2005 Apple Computer, Inc.

Color label: (X) • • • • • • • • • • •

Open using Rosetta  
 Locked

**So Near, Yet So Safari** Forcing Safari to run on Rosetta can solve streaming problems.

That particular station, as well as many others, streams its content in the Windows Media format. Trouble is, Microsoft abandoned Windows Media Player for the Mac. But all is not lost, because Telestream has stepped in with its free Flip4Mac WMV QuickTime plug-ins ([macworld.com/1724](http://macworld.com/1724)), which allow you to play and stream most Windows Media files on both PowerPC and Intel Macs. Download and install the Flip4Mac WMV Player, and you should be good to go.

I say "most Windows Media files," however, because even after I installed the Universal version of Flip4Mac, I couldn't stream WQAM's feed on my Intel Mac mini. So I resorted to another time-tested trick for getting stubborn apps to run on an Intel Mac.

Quit Safari, select its icon in the /Applications folder, and press ⌘-I. In the resulting Info window, enable the Open Using Rosetta option in the General section (see "So Near, Yet So Safari"). Then try listening again.

The biggest problem with this workaround is that Safari will probably run more slowly on Rosetta than it does natively. So when you want to resume your regular browsing, you might want to quit Safari, turn off the Open Using Rosetta option, and then relaunch Safari. Or you could choose to run one browser on Rosetta (Firefox, for example) for listening to that stream, and use another for your regular browsing.



## TIP OF THE MONTH

### Cleaner Desktop Dropping

When you drag multiple items to the desktop from another folder, they tend to arrive there in a messy clump. To avoid the mess, don't drag the items directly to the desktop. Instead, drag them to the desktop icon in the Finder sidebar. When you do so, the items appear spaced evenly along an invisible grid on the desktop, instead of all over each other. Of course, this tip will work only if you have enough free space on the desktop for each item to have its own spot.

Gabriel Dorado

**Limited Vocabulary**  
Don't speak Byelorussian? Don't need your Mac to? Monolingual will help you rid your computer of support for unnecessary languages.

## A Slimmer Hard Drive

I just got a MacBook, and the OS and the default set of apps take up almost a third of its hard drive. I noticed that the /Library/Printers folder alone took up almost 4GB. As I understand it, this folder contains profiles and drivers for a variety of printers (Ricoh, Sharp, Toshiba, and so on), many of which I'll never use. Can I safely toss some of these printer folders?

Bruce Bigenho

Sure you can. Just navigate to /Library/Printers and move the folders for the printer families you won't need to the Trash. But don't be too cavalier about it. Hang on to folders for printer families that you might someday consider for purchase or that are used in your office—just in case. Though printers ship with their own drivers, OS X's versions of those drivers are often more up-to-date. (You have no idea how long that printer's box may have been sitting on the shelf.) And some vendors don't even include an OS X driver in the printer box.

While you're cleaning house, you don't need to stop at printers. If you'll never need some of the obscure language resources that ship with OS X and other software (Klingon, anyone?), you can selectively remove them with J. Schrier and I. Stein's free Monolingual utility ([monolingual.sourceforge.net](http://monolingual.sourceforge.net)). In addition to letting you toss support for languages (see "Limited Vocabulary"), Monolingual can strip unwanted languages from OS X's Input menu and remove unnecessary architectures—for example, Intel support if you're running applications on a PowerPC Mac.

But wait, there's more. For example, if you have no plans to use GarageBand, go to /Library/Application Support and toss out the GarageBand folder, which contains many, many gigabytes of loops and songs. While you're in Application Support, and if you won't be using iDVD on your computer, dump the iDVD folder, which weighs in at nearly 2GB.

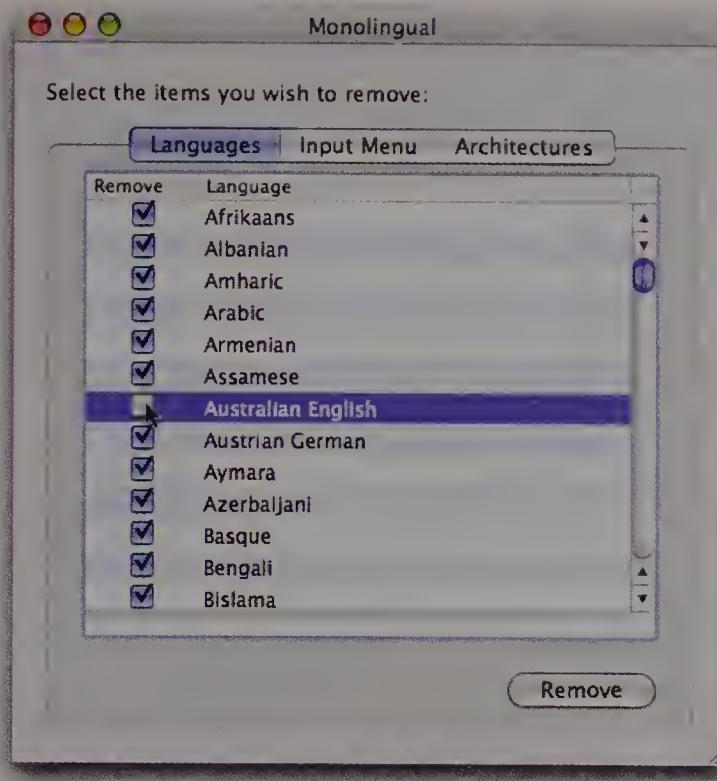
## Other and the Root User

When I log in, I see Other in my list of users. What's up with that, and is there any way to get rid of it?

John Bruhl

That entry can appear when you enable the root user, a special user account with read and write access to all areas of the file system. Unless you really need such privileges, you should disable the root user—and doing so will get rid of the Other entry.

Log in as a user with administrator privileges, navigate to /Applications/Utilities, and launch Net-Info Manager. In the resulting window (which should have the header *local @ localhost - /*), click on the lock icon, enter your password at the prompt, click on OK, and choose Security: Disable Root User. Enter your password again when prompted and click OK. Quit NetInfo Manager and log out.



If your system is configured to display the list of your computer's users at login (instead of automatically logging in or showing blank Name and Password fields) the Other entry should be gone.

## Synchronize Mail's Junk-Mail Settings

I have an iMac G5 and a PowerBook G4, both running OS X 10.4.7. While I use Mail's junk-mail filter on both machines, I've spent more time training the filter on my iMac about what is and isn't junk mail. I would like to have the PowerBook use the same filter settings. Is there any way to synchronize the two junk-mail filters, or at least copy the trained filter's settings from my iMac to my PowerBook?

Jorrit Dijkstra

There sure is. First, on your PowerBook, quit Mail, navigate to *your user folder/Library/Mail*, and find the LSMMMap2 file. That's where Mail stores its junk-mail training data. Move that file to the desktop for temporary safekeeping.

Now, on your iMac, go to the same folder and make a copy of its LSMMMap2 file. Using a network connection or portable hard drive, move that copy to your PowerBook and put it in the PowerBook's *your user folder/Library/Mail* folder. When you launch Mail on your laptop, it should have the same filtering savvy as Mail on your iMac.

## Editing OS X's Spelling-Checking Dictionary

Do you know how to synchronize, review, and/or edit user additions to OS X's built-in spelling-checker dictionary?

Michael Glotzer

Sort of, yes, and yes.

If by "synchronize" you mean "replace the spelling-checker dictionary on one Mac with the dictionary from another Mac," here's how: On the Mac that has the dictionary you want to use, go to *your user folder/Library/Spelling*, and make a copy of the en file

continues

I HELPED THE  
**HELP  
DESK**

Send your tips to [mac911@macworld.com](mailto:mac911@macworld.com). If we publish yours, you'll receive this dandy mug. All published submissions become the sole property of Macworld.



# TOOLS OF THE TRADE

## Snappy Reminders

Tell me this hasn't happened to you: Your Mac has crashed badly and you've had to reinstall the OS and your applications. You get ready to go to the Web to download the latest updates for your software and to reestablish your connections with your e-mail accounts and your favorite Web sites, but—whoops—you realize that you've forgotten the passwords for your network and your e-mail accounts.

Or maybe you've moved all your hardware from one part of the house to another, you're trying to get it set up again, and you've forgotten the tangled configuration settings that allowed Device C to talk to Device D.

Or maybe you're just a do-it-yourselfer who loves nothing more than ripping apart a complex piece of equipment just to put it back together again.

Sure, in each case, you could scribble down all your settings and draw a bunch of diagrams. But it's easier to follow some age-old advice: Take a picture; it lasts longer.



You can take screenshots of all your important preference panes and settings windows—the ones that contain your network and e-mail settings and your other vital information—for future reference. To do so, just open the window or preference pane you want to record for posterity, press ⌘-shift-4 to pull up OS X's built-in screen-capture tool, and take the shot. You can either save a copy on your Mac or—smarter still—print a copy for later reference. While you're at it, stash a backup copy of the file in some other location, just in case.

For particularly tricky configuration chores, take a series of stills or (better yet) buy a copy of the video-capture version of Ambrosia Software's Snapz Pro X (\$69; [macworld.com/0295](http://macworld.com/0295)) and make a movie of your actions.

And for complex hardware setups or repairs, put your digital camera to good use and snap pictures of cabling and components. Name the resulting pictures in a way that will help you re-create a particular setup or state, print a copy, and (as before) store backup files in a safe location.

there. Put that copy (using either a network or a portable drive to move it) into the same folder on the second Mac, replacing the old one. (As usual, before you replace the en file on that second machine, make a copy of the file and put that copy in a safe location, just in case something goes wrong.) After you log out and back in to that second Mac, you should have access to the dictionary from the first Mac.

If you don't see a Spelling folder on the second machine, you probably haven't added any words to its spelling-checker dictionary. If that's the case, open aTextEdit document and type a word that isn't likely to be in the spelling checker—Breen, for example. Next, control- or right-click on the word to call up the spelling-checker contextual menu, and select Learn Spelling. The Spelling folder (and en file) should be automatically generated.

To review additions you've made to the spelling-checker dictionary, you can use Bare Bones Software's

free TextWrangler ([macworld.com/1725](http://macworld.com/1725)). Open the en file in TextWrangler and choose Edit: Text Options. In the resulting sheet, enable the Show Invisibles option and click on OK. The additions you've made to the dictionary should now be indicated by a red upside-down question mark.

Now that you can see the user additions, you can delete or edit them or add new ones. If you're adding new entries, just be sure to copy one of those upside-down question marks and paste it between each entry. When you're done, save the file, log out, and then log back in again for the changes to take effect.

And now that you know how to edit the en file, you can combine two different dictionaries by copying the contents of one en file and pasting them into another.

## Revealing Network Diagnostics

I'd like to use Tiger's Network Diagnostics tool to troubleshoot a problem I've been having with my home network. But I can't figure out how to launch it. I've seen a button that starts the utility in Safari when I can't connect to the Internet, but otherwise I have no idea where to find it.

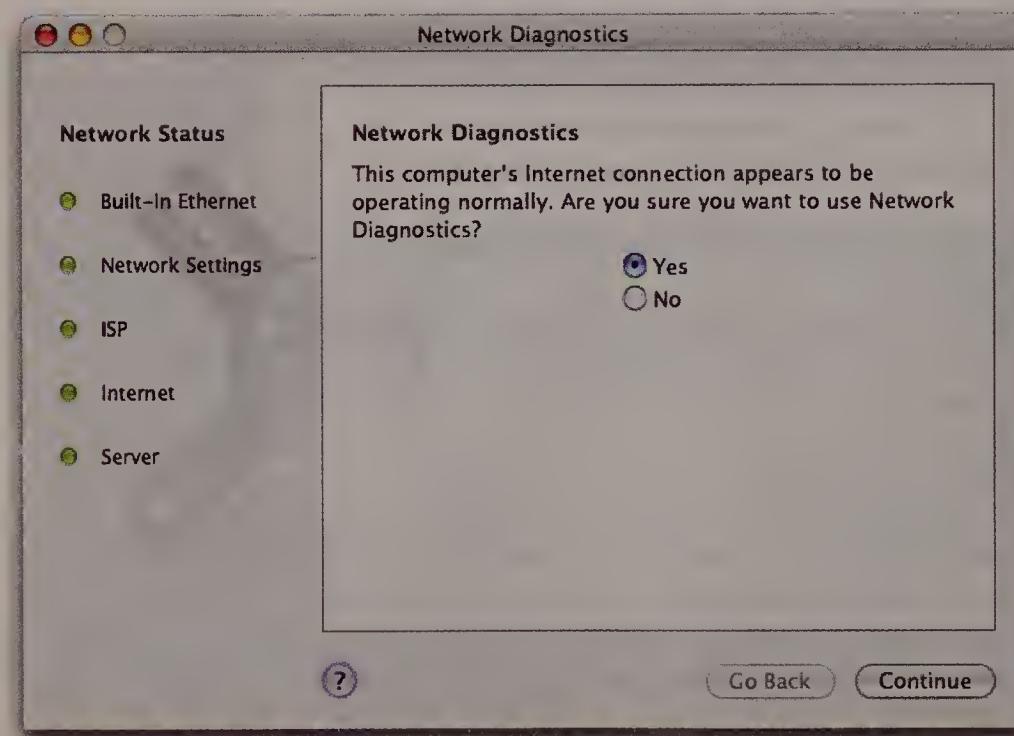
Via the Internet

The word *Network* in Network Diagnostics gives you a hint. One way to launch it is to open the Network preference pane, click on the Assist Me button, and then click on the Diagnostics button in the sheet that appears (see "Doing Diagnostics"). (Clicking on the Assistant button next to the Diagnostics button launches the Network Setup Assistant.) The other way to enable this utility is to go to /System/Library/CoreServices and double-click on the Network Diagnostics icon. □

Senior Editor CHRISTOPHER BREEN is the author of *Secrets of the iPod and iTunes*, fifth edition, and *The iPod and iTunes Pocket Guide* (both Peachpit Press, 2006).

## Doing Diagnostics

Network troubles? Let the hidden Network Diagnostics application lend a hand.



# ADVERTISERS INDEX

Interact with the companies whose products and services are advertised in **Macworld**.

ADVERTISER	INTERACT	PAGE NO.	ADVERTISER	INTERACT	PAGE NO.
3 Cats and a Mac 4 Over Inc.	3caam.com 4over.com	121 123	KB Covers	kbcovers.com	71
Academic Superstore Acme Made AMCC	mw.academicsuperstore.com acmemade.com 3ware.com	126 120 44	LaCie	lacie.com	95
AmericasPrinter.com APC	americasprinter.com apc.com	125 25	Mac of all Trades Mac Solutions Macally	macofalltrades.com macsolutions.com macally.com	125 124 63
Apple Computer Apricorn Aspyr	apple.com apricon.com/macworld aspqr.com	C2-1, 118 45 26, 28, 31	MacConnection MacMall MacSoft	macconnection.com/mw macmall.com macsoftgames.com	112-113 110-111 43
Audio Engine Axio Designs	audioengineusa.com axio-usa.com	70 120	Macworld Expo Mark/Space Marware	macworldexpo.com markspace.com marware.com	99, 105 119 65
Battery Geek Biomorph Bookendz Booq, LLC Brother Bumbakpaks	batterygeek.net biomorph.com bookendzdocks.com booqbags.com brother.com bumbakpaks.com	119 64 62 72-73 87 120	MegaMacs Micromat MicroReplay mStation	megamacs.com micromat.com microreplay.com mstationaudio.com	126 21 124 81
CDW Circus Ponies Creative Juices	cdw.com circusponies.com bigposters.com	93 24 124	Newegg.com Nikon	newegg.com nikondigital.com	114-115 51, 53
DataVideo Dekorra Optics Disc Makers	datavideo.us eazydraw.com discmakers.com/mw	119 62 124	Omni Group Other World Computing	blog.omnigroup.com macsales.com	39 C3, 11, 116-117
DLO Dr. Bott Drive Savers	dlo.com drbott.com/local drivesavers.com	37 32-33 122	Pacific Rim Panasonic Parallels PowerMax Prosoft Engineering	pacrimtechnologies.com panasonic.com/digitalslr runwindowsonmac.com powermax.com prosofteng.com	64 90-91 27 127 121
Earthlink EDG Graphics Elgato Systems eMusic	earthlink.net edgmiami.com elgato.com emusic.com/macworldpicks	29 124 22 49	Quark QuickerTek	quark.com quickertek.com	7 61
Epson ESS Data Recovery Labs Etymotic Research	epson.com savemyfiles.com etymotic.com	2-3 122 10	Radtech Rain Design Ramjet Retractable Banners Rosetta Stone RTA Products	radtech.com raindesigninc.com ramjet.com tradeshows-stuff.com rosettastone.com rtaproducts.com	125 124 54 119
FatCow Freeverse Fujitsu Full Sail Real World	fatcow.com/mac freeverse.com fcpa.fujitsu.com/scanners/96C9 fullsail.com	125 46 16-17 30	Sanyo SeafoodByNet Secure-it Sharpdots Shreve Systems Small Dog Electronics	sanyodigital.com/61 seafoodbynet.com secure-it.com sharpdots.com shrevsystems.com smalldog.com	41 120 61 122 126 12
Geek Cruise GizmoLab Griffin Technology	geekcruises.com gizmolab.com/save/mw/4 griffintechology.com	47 121 8	TechRestore	techrestore.com	121
Hewlett-Packard Hildreth Enterprises	hp.com/go/graphicdesign4 pcprices.net/mac	C4 124	Vermont Teddy Bear Co. ViewSonic	pajamagram.com viewsonic.com	120 4
iHome iLuv IMSI iSkin	ihomeaudio.com i-luv.com turbocad.com/mw iskin.com	79 13 67 85	Wacom Wiebe Tech	tabletphotofun.com wiebetech.com	15 71
Journey Education	journeyed.com	126	zCover Zoo Printing	zcover.com zooprintingtrade.com	23 122

# NEW 24" iMac—bigger, brighter

The new top-of-the line iMac features a 24" screen that's 40% brighter & p



## NEW 24" Apple® iMac®!

NEW! 64-bit Intel Core 2 Duo processor with blazing speeds up to 2.33GHz

- NEW! 24" widescreen display with a 40% brighter screen
- NEW! 4MB shared L2 cache
- NEW! 1GB 667MHz DDR2 SDRAM PC2-5300 with support for up to 3GB
- 250GB Serial ATA hard drive
- 8X Dual Layer SuperDrive™
- Built-in iSight™ videoconferencing



24" iMac starting at

**\$1,844!**



### NEW! MacBook Intel Core Duo Processor

#7051437 NEW! 13.3" MacBook 1.83GHz (White)

\$1,094-\$100 mail-in rebate = **\$994!**\*

#7051451 NEW! 13.3" MacBook 2GHz (White) 60GB HD

\$1,294-\$100 mail-in rebate = **\$1,194!**\*

#7051455 NEW! 13.3" MacBook 2GHz (Black) 80GB HD

\$1,494-\$100 mail-in rebate = **\$1,394!**\*

### NEW! MacBook with 1.5GB Extra RAM Installed

#7089621 NEW! 13.3" MacBook 1.83GHz (White) + 1.5GB Extra RAM

\$1,434-\$100 mail-in rebate = **\$1,334!**\*

#7089622 NEW! 13.3" MacBook 2GHz (White) + 1.5GB Extra RAM

\$1,634-\$100 mail-in rebate = **\$1,534!**\*

#7089623 NEW! 13.3" MacBook 2GHz (Black) + 1.5GB Extra RAM

\$1,834-\$100 mail-in rebate = **\$1,734!**\*

### NEW! MacBook Bundled with Windows XP

#7053045 NEW! 13.3" 1.83GHz White with Windows XP Home

\$1,249-\$100 mail-in rebate = **\$1,149!**\*

#7053046 NEW! 13.3" 1.83GHz White with Windows XP Pro

\$1,299-\$100 mail-in rebate = **\$1,199!**\*

#7053047 NEW! 13.3" 2GHz White with Windows XP Home

\$1,449-\$100 mail-in rebate = **\$1,349!**\*

#7053048 NEW! 13.3" 2GHz White with Windows XP Pro

\$1,499-\$100 mail-in rebate = **\$1,399!**\*

#7053049 NEW! 13.3" 2GHz Black with Windows XP Home

\$1,649-\$100 mail-in rebate = **\$1,549!**\*

#7053050 NEW! 13.3" 2GHz Black with Windows XP Pro

\$1,699-\$100 mail-in rebate = **\$1,599!**\*

MacBook Pro also available with glossy screen display. Call for details.

### \*WE'LL BEAT ANY PRICE ON ANY APPLE BRAND PRODUCTS

or competitive promotion on any Apple computer. We may require proof of dealer's pricing. Competitor must be an Apple Authorized Reseller. Product in stock at the competition. Advertised item must be identical to the one offered by MacMall and must be a new item in a factory sealed box. We reserve the right to limit quantity ordered. This offer does not apply to special, bonus or free offers, grand opening special purchases or special buys, manufacturer's rebates, closeouts, clearances or to dealers' one-of-a-kind or other limited quantity offers. Nor does it apply to advertising errors made by any authorized dealer. Not open to dealers. Void where prohibited. Sorry.

# and faster than ever!

*ed with incredible Intel Core 2 Duo performance!*

## 7" iMac Intel Core 2 Duo Processor

#98936 17" iMac 1.83GHz/512MB/160GB/Combo  
\$994-\$75 mail-in rebate = \$919!  
#16482 17" iMac 1.83GHz/2GB/160GB/Combo  
\$1,244-\$75 mail-in rebate = \$1,169!  
#16426 17" iMac 1.83GHz Boot Camp 1.1 and Win XP Home  
\$1,143-\$75 mail-in rebate = \$1,068!  
#16427 17" iMac 1.83GHz Boot Camp 1.1 and Win XP Pro  
\$1,193-\$75 mail-in rebate = \$1,118!  
#98937 17" iMac 2GHz/1GB/160GB/SuperDrive/X1600  
\$1,194-\$100 mail-in rebate = \$1,094!  
#16484 17" iMac 2GHz/2GB/160GB/SuperDrive/X1600  
\$1,369-\$100 mail-in rebate = \$1,269!  
#16420 17" iMac 2GHz Boot Camp 1.1 and Win XP Home  
\$1,343-\$100 mail-in rebate = \$1,243!  
#16422 17" iMac 2GHz Boot Camp 1.1 and Win XP Pro  
\$1,393-\$100 mail-in rebate = \$1,293!

## 20" iMac Intel Core 2 Duo Processor

#98938 20" iMac 2.16GHz/1GB/250GB/SuperDrive/X1600  
\$1,494-\$100 mail-in rebate = \$1,394!  
#16485 20" iMac 2.16GHz/2GB/250GB/SuperDrive/X1600  
\$1,669-\$100 mail-in rebate = \$1,569!

## Mac® mini

New!

\$594  
-\$20 mail-in rebate\*

starting at \$574!\*

## Mac mini with Intel Duo Core

#7098941 NEW! Mac mini 1.66GHz with Intel Core Duo 1.66GHz  
\$594-\$20 mail-in rebate = \$574!  
#7116408 NEW! Mac mini 1.66GHz with Windows XP Home  
Pre-installed \$743-\$20 mail-in rebate = \$723!  
#7116409 NEW! Mac mini 1.66GHz with Windows XP Pro  
Pre-installed \$793-\$20 mail-in rebate = \$773!  
#7098942 NEW! Mac mini 1.83GHz with Intel Core Duo  
\$794-\$20 mail-in rebate = \$774!  
#7116410 NEW! Mac mini 1.83GHz with Windows XP Home  
Pre-installed \$943-\$20 mail-in rebate = \$923!  
#7116411 NEW! Mac mini 1.83GHz with Windows XP Pro  
Pre-installed \$993-\$20 mail-in rebate = \$973!

## MacMall—The #1 Apple Direct Reseller!

Over 500,000 Mac products available online! Visit [macmall.com](http://macmall.com) today!

#7116442 20" iMac 2.16GHz Boot Camp 1.1 and Win XP Home  
\$1,643-\$100 mail-in rebate = \$1,543!  
#7116443 20" iMac 2.16GHz Boot Camp 1.1 and Win XP Home  
\$1,693-\$100 mail-in rebate = \$1,593!

## 24" iMac Intel Core 2 Duo Processor

#7098939 24" iMac 2.16GHz/1GB/250GB/SuperDrive  
\$1,994-\$150 mail-in rebate = \$1,844!  
#7116486 24" iMac 2.16GHz/2GB/250GB/SuperDrive  
\$2,169-\$150 mail-in rebate = \$2,019!  
#7116448 24" iMac 2.16GHz  
Boot Camp 1.1 and Win XP Home  
\$2,143-\$150 mail-in rebate = \$1,993!  
#7116284 24" iMac 2.33GHz/1GB/  
250GB/SuperDrive/7300GT  
\$2,244-\$150 mail-in rebate = \$2,094!  
#7116487 24" iMac 2.33GHz  
Boot Camp 1.1 and Win XP Home  
\$2,393-\$150 mail-in rebate = \$2,243!  
#7116488 24" iMac 2.33GHz  
Boot Camp 1.1 and Win XP Pro  
\$2,443-\$150 mail-in rebate = \$2,293!



## The ALL-NEW iPod Family!

The world's most famous portable media players are smaller, brighter and more colorful than ever before! Get yours today!

iPod shuffle \$74! Call for details.

## Now it's easy to run Windows on your Intel Mac!

### Parallels Desktop for Mac

Parallels Desktop for Intel-based Macs lets you switch back and forth between Mac OS X and Windows XP with a simple keystroke!

#7080016



\$79.99!  
only

Call for details.

We'll beat any price on any Apple® brand products!

See below or call for details.

## iPod® Accessories!

### Nike + iPod Sports Kit

Transform your iPod nano into a personal workout coach!  
#7073921



only \$28.99!

Call for details.

## Entertainment Dock 500 for iPod

#7005235 Kensington®

only \$79.99!

Call for details.



## Universal Software!

### QuarkXPress 7 Upgrade

#7051506

only \$249.99!

Call for details.



### TechTool Pro 4.5 Upgrade

#7095515

only \$58.99!

Call for details.



### DAVE v.6 Network Software

#602960

only \$113.99!

Call for details.



## Displays and Add-Ons!

### 17" Active Matrix Flat-Panel LCD

#7049874



### CALL FOR BEST PRICE!



19" OptiQuest Flat-Panel LCD  
#7044593

ViewSonic

### CALL FOR BEST PRICE!

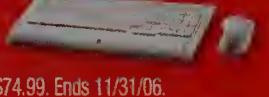
### Cordless Desktop S 530 Laser for Mac

#759804

only \$49.99!

Logitech

After \$25 mail-in rebate. Price before rebate is \$74.99. Ends 11/31/06.



**MacMall®**

1-800-321-7532

Visit us at [macmall.com](http://macmall.com)

Source Code: MACWORLD

Valid in conjunction with other rebate offers. On multiple-item quotes: "We'll Beat Any Price" applies to the price of the entire order, not individual line items. Offer applies to e-taxed prices only. Offer valid only at time of purchase, not after the fact. ■ UP TO \$200 CASH BACK OFFER—Get up to \$200 Cash Back via MacMall mail-in rebate with purchase of select computer models. HURRY! OFFER ENDS SOON OR WHILE SUPPLIES LAST. Call for details. ■ Download rebate coupons at [www.macmall.com/rebates](http://www.macmall.com/rebates).

# Connect with all the products

## DIGITAL CAMERAS

**Canon**

Capture Every Memory

PowerShot A630

- 8.0 megapixels ■ 4x optical zoom ■ 2.5" swivel LCD

ONLY \$299.95



**Canon**

Get Perfect Photos Every Time

PowerShot A710 IS

- 7.1 megapixels ■ 6X optical zoom
- Optical image stabilizer

ONLY \$399.95



**Nikon**

Cool Camera, Cool Price

Coolpix L5

- 7.2 megapixels ■ 5X optical zoom ■ Vibration reduction

ONLY \$299.95



**OLYMPUS**

Best Value for your Buck

FE-170

- 6.0 megapixels ■ 2.5" LCD ■ Digital image stabilization

ONLY \$149.95



**OLYMPUS**

No More Shaking

Stylus 750

- 7.1 megapixels ■ 5X optical zoom
- Digital and optical image stabilization

ONLY \$399.95



## DIGITAL SLR

**DIGITAL SLR**

Incredibly Advanced, Remarkably Simple

**Canon**

NEW!

**EOS Digital Rebel XTi**

(lens not included)

- 10.1 megapixels
- Integrated cleaning system
- Large 2.5" LCD

\$799.99

ONLY #7073931



## CAMCORDERS

**Panasonic**



ONLY \$499  
#6475189

Sharp and Smart

VDR-D200 DIGA DVD Palmcorder

- MPEG2 engine captures motion with precision
- Powerful 30X optical zoom
- Easy switch from shooting to playback



ONLY \$449.95  
#6475189

Digital Color Wonder

PV-GS180 Digital Palmcorder

- Remarkable color, detail, and gradation—3CCD camera system
- 2.3-megapixel still picture recording
- High-picture quality wide mode (16:9)

**SONY**



ONLY \$849  
#6475189

Capture Amazing Images

DCR-SR100 30GB Handycam

- 3.3-megapixel advanced HAD CCD Imager
- Professional-quality Carl Zeiss Vario-Sonnar T lens
- Super SteadyShot image stabilization



ONLY \$749  
#6359330

Get out the Popcorn

DCR-DVD505 DVD Handycam

- Dolby Digital 5.1 surround sound with built-in microphone brings the theater to your home
- 2.1-megapixel CLEARVID CMOS Sensor
- 3.5" SwivelScreen LCD touch panel display

800.800.3333

[www.macconnection.com/mw](http://www.macconnection.com/mw)

# you want, all in one place



## Home Theater in Your Pocket

### NEW! iPod

- Download movies and TV shows from iTunes store and watch them anywhere
- New 80% brighter, 2.5" color LCD
- Keep track of your schedule with calendar and contacts features
- Up to 20 hours of battery life on a single charge
- Store up to 20,000 songs/25,000 photos/100 hours of video
- Dock connector, stereo minijack, composite video and audio through minijack

iPod 30GB color screen

\$249 #6816916 (White)  
#6816924 (Black)

iPod 80GB color screen

\$349 #7009796 (White)  
#7009817 (Black)

## The Biggest Thing in Small



### NEW! iPod shuffle

- New aluminum case and integrated clip
- Carry up to 240 songs
- Take control with a smooth, one-click thumb button
- Enjoy up to 12 hours of continuous music
- Travel light: weighs about half an ounce

iPod shuffle 1GB \$74 #7009817

## Completely Remastered

### NEW! iPod nano

- New anodized aluminum case
- New 40% brighter display
- New longer battery life—up to 24 hours

2GB

- Store and play 500 songs
- Up to 25,000 photos

\$149

#6816828 (Silver)

4GB

- Store and play 1000 songs
- Up to 25,000 photos

\$199

#6816844 (Silver)  
#6816879 (Pink)  
#6816895 (Green)  
#6816861 (Blue)

8GB

- Store and play 2000 songs
- Up to 25,000 photos

\$249

#6916908 (Black)



## Authorized Reseller

### Intel at the Core

### NEW! Mac Pro

All Mac Pro Configurations Include:

- Up to 16GB
- 16X SuperDrive with double-layer support (DVD±RW DL)
- Up to 2TB of internal storage
- Double-wide 16-lane PCI Express graphics slot
- FireWire 800
- Optical digital audio and analog audio in and out
- Mac OS X 10.4 Tiger
- iLife '06

NEW Mac Pros START AT

\$2099

### Expand Your View!

Cinema displays start at just \$694!  
Displays include: 16.7 million colors, a DVI display connector, a 2-port USB 2.0 hub, and 2 FireWire ports.

### NEW! Mac mini

Now up to 5X Faster

- Faster Intel® Core™ Duo Processors
- 512MB RAM
- Up to 80GB HD
- Available SuperDrive
- VGA and DVI ports
- Bluetooth and AirPort Extreme wireless
- Mac OS X 10.4 Tiger
- iLife '06

NEW Mac mini STARTS AT

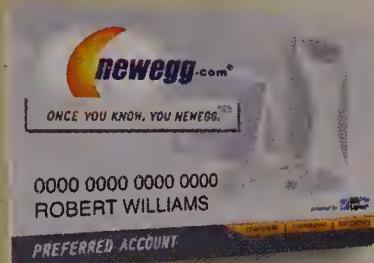
\$599





**newegg.com®**

ONCE YOU KNOW, YOU NEWEGG.



No Payments  
for **6 months**  
with your  
**NEWEGG.COM**  
**PREFERRED**  
**ACCOUNT**

Enjoy no payments for 6 Months and FREE rush processing with the Newegg.com Preferred account! It's the credit account customized for shopping at Newegg.com. Never have to enter an account number again during checkout! With zero fraud liability, members-only benefits and low interest financing, it's the smart move.

See Newegg.com for more info. Promotion expires 12/31/06.

2005 BizRate Circle of Excellence Gold Honoree.

**WD** Western  
Digital®

**Western Digital WDG1T500N**

My Book Pro 500GB 7200 RPM 16MB Cache USB External Hard Drive

**\$259.99**

**LACIE**

**LaCie 300998U**

Mini 250GB 3.5" IEEE 1394a Mac Storage 7200 RPM 8MB Cache

**\$119.99**

WITH OUR VAST SELECTION, IT'S ALMOST

**GRIFFIN**



**\$94.99**

**Griffin TuneCenter**  
Home Media Center For iPod  
Includes a 14 Button Remote

**iHome**



**\$79.99**

**iHome iPOD Clock Radio**  
WakeTo iPOD Radio or Buzzer  
Fits All Docking iPods

**GRIFFIN**



**\$23.99**

**Griffin 9756-PKIT**  
Charging Kit For iPod Automatically  
Handles 110 to 240 Volt

**BELKIN**



**\$144.99**

**Belkin F8Z082-BLK**  
TuneTalk Stereo for iPod with Video  
30GB, 60GB, 80GB (iPod not included)

**Kensington**



**\$74.99**

**Kensington SX 2000 Speakers**  
NXT SurfaceSound Bi-Directional  
Loudspeaker Technology for iPod

**GRIFFIN**



**\$44.99**

**Griffin iTrip Auto**  
FM Transmitter and Auto Charger  
with Backlit LCD Screen For iPod

**BELKIN**



**\$61.99**

**Belkin F8Z088**  
TunePower for iPod Video  
Adds 6Hr Video or 10Hr Audio

**Kensington**



**\$52.99**

**Kensington FM Transmitter**  
Transmits iPod Tunes Through Any  
Available FM Radio Frequency

# BEST PLACE TO BUY

- ONLINE - SOFTWARE  
- PERIPHERALS - CORE COMPONENTS



••• Enter Promo Code MCW21206 at checkout for a **FREE T-SHIRT** with these items •••



**Western Digital WDXE5000KSN**

NetCenter 500GB 7200 RPM 8MB Cache USB Network Hard Drive

**\$284.99**



**Western Digital WDG2TP1000N**

My Book Pro 1TB 7200 RPM 3.5" USB External Hard Drive

**\$499.99**



**BUFFALO**

**BUFFALO 2GB(2x1GB)**  
240-Pin DDR2 FB-Dimm Dual Channel Kit Memory For Apple Server

**\$469.99**



## HARDER FINDING AN UPGRADE WE DON'T HAVE



**\$56.99**

**Wenger GA-7306-06F00**  
Pegasus Computer Backpack Fits Most 17" Notebooks

MARWARE



**\$29.99**

**Marware 602956003250**  
Black Neoprene Sportfolio for 15" MacBook Pro

VANGUARD



**\$19.99**

**Vanguard Swing 8/Silver**  
Stylish, High Gloss, All Metal Carrying Case for iPod

VANGUARD



**\$19.99**

**Vanguard Swing 8/Black**  
Stylish, High Gloss, All Metal Carrying Case for iPod



**\$4.99**

**Belkin F8V234-WHT**  
White Headphone Splitter for iPod

**m**



**\$145.99**

**Mushkin 971504A**  
1GB 200-Pin DDR2 SO-DIMM Memory for Apple Notebook

K-DATA



**\$121.99**

**A-Data A00PE1A16**  
1GB 200-Pin DDR2 SO-DIMM Memory for Apple Notebook

LACIE



**\$169.99**

**LaCie 301146U**  
D2 320GB 7200 RPM 3.5" USB 2.0 External Mac Storage

- 98% of orders ship within 1 business day
- 500,000 product reviews from customers

- "A" rating on ALL merchant ranking sites
- 50,000 customer testimonials



# Other World Computing

Serving the Mac Universe since 1988

800.275.4576

[www.MacSales.com](http://www.MacSales.com)



## External Storage Solutions (FireWire & USB)

[www.MacSales.com/storage](http://www.MacSales.com/storage)

Expand Your Storage Capacity And  
Port Flexibility With The Powerful,  
Space-Saving **miniStack!**

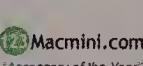


NewerTech **miniStack V2** features a fast 3.5" drive - up to 750GB - plus 2 FireWire and 2 USB 2.0 ports built in! Works with all Macs as well as any FireWire or USB equipped computer.

Perfect for:

- Music & video files
- Graphics & photos
- Document storage

Connect printers, card readers, digital cameras and iPods all at once!



NewerTech **miniStack** Performance Storage with Integrated Hubs.

miniStack V2 FireWire +USB2	80GB to 750GB	from \$119.99
miniStack USB2	80GB to 750GB	from \$99.95



Solutions include all cables, EMC Retrospect Backup, and Intech HD Speedtools. Drives are preformatted with free bonus software!

UP TO  
1.5 TB



## Fast Speed! High Capacity! Low Price!

All OWC and NewerTech FireWire/FireWire+USB2 solutions utilize Oxford chipsets on a custom bridge for the highest performance and the most reliable operation.

OWC **Mercury Elite-AL** single & RAID Professional FireWire/USB storage solution external HD.

FireWire 400+U5B2	80GB to 750GB	from \$109.99
FireWire 800/400	80GB to 750GB	from \$129.99
FireWire 800/400+USB2	80GB to 750GB	from \$139.99
<b>New!</b> Quad Interface eSATA, FW400, FW800, U5B	250GB to 750GB	from \$189.99
Pro 800 Performance RAID	160GB to 1.5TB	from \$209.99
Pro FW800/400+USB2 RAID	160GB to 1.5TB	from \$269.99
Pro 800 RAID 1 Mirrored Backup	250GB to 750GB	from \$379.99
Pro 800 RAID 0+1 Stripe+Mirror	500GB to 1.5TB	from \$649.99

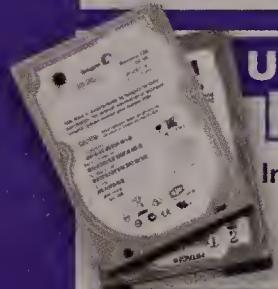
**OWC Mercury Elite Pro 'Classic'**

USB2	80GB to 500GB	from \$89.99
FireWire 400+USB2	80GB to 500GB	from \$119.99
FireWire 800/400	80GB to 500GB	from \$139.99
FireWire 800/400+USB2	80GB to 500GB	from \$149.99
<b>OWC Mercury On-The-Go</b> totally bus-powered pocket sized solution		
USB2	40GB to 120GB	from \$99.00
FireWire 400	40GB to 120GB	from \$115.99
FireWire 400 + USB2	40GB to 160GB	from \$119.99
FireWire 800/400+U5B2	40GB to 160GB	from \$137.99
<b>OWC Neptune</b> – Value Done Right		
FireWire 400	80GB to 500GB	from \$93.95

## Upgrade Solutions

[www.MacSales.com/harddrives](http://www.MacSales.com/harddrives)

Internal SATA upgrade solution  
for MacBook & Mac Book Pro  
-EMC Backup included  
up to 160 GB, only \$199.95!



MacBook Pro and MacBook SATA hard drives  
— up to 160GB

Model/Warranty	Speed	Cache	Size	Price
Seagate/5yr	7200RPM	16MB	320GB	\$119.99
	5400RPM	16MB	160GB	\$299.00
Hitachi/3yr	7200RPM	100GB	100GB	\$179.00
	5400RPM	16MB	160GB	\$199.95
Western Digital/3yr	5400RPM	120GB	120GB	\$114.99

New Mac Pro Quad Xeon!

Plug-and-Play up to a total of 4 SATA drives



Model/Warranty	Speed	Cache	Size	Price
Seagate Barracuda/5yr	7200RPM	16MB	320GB	\$119.99
	7200RPM	16MB	500GB	\$214.95
Western Digital Caviar/3yr	7200RPM	16MB	750GB	\$389.00
	7200RPM	8MB	320GB	\$124.99
Hitachi Deskstar/3yr	7200RPM	8MB	400GB	\$147.99
	7200RPM	8MB	500GB	\$197.95
Hitachi	7200RPM	8MB	250GB	\$89.95
Deskstar/3yr	7200RPM	16MB	500GB	\$239.00

### Hard Drives for Other Macs

For iMacs, eMacs & PowerMacs

3.5" Plug-and-Play 80GB to 750GB from \$52.95

For PowerBooks, iBooks & Mac Minis

2.5 ATA drives 40GB to 160GB from \$58.95

## Controller Cards

[www.MacSales.com/controllers](http://www.MacSales.com/controllers)

### Hard Disk Controller Cards

<b>OWC</b>	2-channel SATA/eSATA (Int/Ext) PCI/PCI-X	\$49.95
<b>ACARD</b>	2-channel SATA Internal PCI/PCI-X	\$54.99
<b>SIIG</b>	4-channel SATA Internal PCI/PCI-X	\$57.99
<b>SONNET</b>	Up to 8 channel PCI/PCI-X/PCI-Express	from \$75.99
<b>FirmTek</b>	Up to 4 channel PCI/PCI-X/PCI-Express	from \$63.99
<b>FirmTek</b>	2-channel SATA PCIE34 for MacBook	\$119.00

Hard disk controller cards can bulk up your computer by giving it higher capacity.



**No Matter The Mac  
We've Got You covered**  
From Mac Pro's to iPod's  
OWC has the hardware to  
maximize your Mac  
[www.MacSales.com](http://www.MacSales.com)



Cash  
Back!

## Memory Upgrades For Every Intel Mac

All memory from OWC meets or exceeds Apple's specifications and is backed by a 30 day money-back guarantee and LIFETIME Advance Replacement Warranty.

OWC Mac Pro Quad Xeon Memory is fully tested and certified to meet all Apple specifications and includes the use of an actual Apple-Qualified Heat-Spreader to ensure optimum performance and reliability.

### Mac Pro 667MHz DDR2 FB-DIMM Sets

Add memory in sets using 1GB FB-DIMM	
2GB matched set (1GB modules x 2)	\$472.99
4GB matched set (1GB modules x 4)	\$945.00
6GB matched set (1GB modules x 6)	\$1,409.99
8GB matched set (1GB modules x 8)	\$1,875.00
Add memory in sets using 2GB FB-DIMM	
4GB matched set (2GB modules x 2)	\$999.95
8GB matched set (2GB modules x 4)	\$1,999.00
12GB matched set (2GB modules x 6)	\$2,995.00
16GB matched set (2GB modules x 8)	\$3,979.00

\* Rebate availability and restrictions may apply. See [www.MacSales.com](http://www.MacSales.com) for details.

## Memory Upgrades

[www.MacSales.com/memory](http://www.MacSales.com/memory)

MacBook / MacBook Pro, iMac Intel,  
Mac mini Core Duo & Solo

DDR2 667MHz Upgrade Sets	
512MB module	\$71.99
1GB module	\$135.99
1GB matched set (512MB modules x 2)	\$143.95
2GB matched set (1GB modules x 2)	\$269.99

### Memory Upgrades For Other MACS

184 Pin DIMM	256MB to 2GB	from \$32.95
G5 'Dual Core'	1GB to 4GB	from \$129.00
G4 Aluminum laptop family	256MB to 2GB	from \$27.99
G3 PowerBook	128MB to 512MB	from \$17.99
G4 iBook	256MB to 1GB	from \$27.99
G3 iBook	128MB to 512MB	from \$17.99
iMac G5	512MB to 2GB	from \$64.95
iMac G4	256MB to 512MB	from \$27.99
iMac G3	128MB to 256MB	from \$15.95
168 pin DIMM	128MB to 512MB	from \$15.95

-In Stock; Ready to Ship, Great Prices! Call 800-275-4576 or visit [www.MacSales.com/memory](http://www.MacSales.com/memory) and use our online guide.

## Laptop and iPod Batteries

[www.MacSales.com/NewerTech](http://www.MacSales.com/NewerTech)

**newertechology**

### NuPower® Laptop Batteries

The highest capacity replacement batteries for Apple computers PERIOD!

Up to 62% more capacity

#### NewerTech Laptop Batteries

Model	+ Capacity**	Price
G3 PowerBooks 'Lombard'	up to 62%	from \$135.99
G3 PowerBooks 'Pismo' 2000	up to 62%	from \$135.99
G3 PowerBooks 'WallStreet'	up to 25%	\$129.99
G4 'Titanium'	up to 48%	from \$129.99
G4 'Aluminum' 12" display	up to 17%	\$139.99
G4 'Aluminum' 15" display	up to 16%	\$139.99
G4 'Aluminum' 17" display	up to 21%	from \$129.99
G3 iBooks 12"- 12.1" display	up to 51%	from \$99.95
G3 or G4 iBook 14" display	up to 34%	from \$129.99
iBook 'ClamShell'	up to 50%	from \$109.99

MacBook/Pro NuPower MaxCapacity batteries will be available soon.



**newertechology**  
**NuPower™**  
iPod Replacement Batteries

#### iPod Replacement Batteries

Model	mAh	+ Capacity**	Price
1st & 2nd Generation	2200	78%	\$29.99
3rd Generation	850	30%	\$25.99
4th Generation	830	33%	\$25.95
iPod mini	1350	150%	\$29.95
	600	50%	\$24.95

Easy to install, tools included + online installation videos. Get up to 150% more capacity & 20+ hours runtime!

\*\* Percentage represents additional capacity over the stock Apple battery for the same model.

Macworld

Conference & Expo

January 8-12, 2007

The Moscone Center

San Francisco, CA

Visit OWC at Booth #2218

**NEW!** Add Speed!  
As High as 2.0 GHz  
or 1.8 GHz Dual

### Full line of G4 and G3 upgrades.

30 Day 100% money-back guarantee & 3 year warranty on all OWC and NewerTech G4 processor upgrades.

#### NewerTech MAXpower G4 Processors

G4/7447A 2.0GHz	\$399.00
G4/7447A Dual 1.6 GHz	\$449.00
G4/7447A Dual 1.7 GHz	\$529.00
G4/7447A Dual 1.8 GHz	\$599.00

#### OWC Mercury Extreme G4 Processors

G4/1.2GHz with 2MB L3 Cache	\$199.99
G4/1.5GHz with 2MB L3 Cache	\$249.00

## Processor Upgrades

[www.MacSales.com/accelerators](http://www.MacSales.com/accelerators)



The most stable and highest performing processor upgrade available!

## SuperDrives

[www.MacSales.com/superdrives](http://www.MacSales.com/superdrives)

Add an internal or External Superdrive

External FireWire/USB2 Solutions from \$79.99

for G3/G4/G5 Desktop & Tower Macs from \$29.99

for PowerBook G4 from \$119.99

for iMac G5 from \$129.99

for Mac mini from \$119.99

## Read & Write DVD's & CD's



## Maximize Your Mac

[www.MacSales.com/accessories](http://www.MacSales.com/accessories)

OWC carries a full line of Mac accessories including carrying cases, screen protectors, keyboard protectors, mouses, keyboards and much more to get the most out of your Mac.

### PRAM Batteries

Is your Mac forgetting what time it is?

OWC PRAM batteries from \$4.99

### Mac Accessories

[www.MacSales.com/accessories](http://www.MacSales.com/accessories)

### Laptop Screen Protectors

Protect your screen! from \$13.95

**www.MacSales.com • 800.275.4576**

Prices, specifications and availability are subject to change without notice. Items returned within 30 days may be subject to a restocking fee. No return will be accepted without Return Merchandise Authorization number.

Other World Computing

1004 Courtlands Dr., Woodstock, IL 60098

# If you purchased an Apple 17-inch LCD Studio Display monitor, you could get benefits from a class action settlement.

A settlement of a class action lawsuit affects you if you purchased a new Apple 17-inch LCD Studio Display monitor ("Display"). These Displays were sold beginning in May 2001. The settlement will provide a cash refund to United States residents who purchased a Display and paid for a repair covered by the settlement. If you qualify, you may send in a claim form to ask for payment, or you can exclude yourself from the settlement, or object. The Superior Court of the State of California, County of Los Angeles authorized this notice. The Court will have a hearing to consider whether to approve the settlement, so that the benefits may be paid.

## WHO'S AFFECTED?

Purchasers of a new Apple 17-inch LCD Studio Display monitor. These Displays were sold beginning in May 2001. You're a "Class Member" if you are a United States resident who purchased in the United States a new Apple 17-inch LCD Studio Display monitor for your own use and not for resale.

## WHAT'S THIS ABOUT?

The lawsuit claimed that the inverter board of the Display was faulty, causing the gradient dimming of the top or bottom half of the screen of the Display and a power light to constantly blink on and off in a short-short-long pattern to signal a problem. Apple denies all allegations and has asserted many defenses. Apple is entering into this settlement to avoid burdensome and costly litigation. The settlement is not an admission of wrongdoing or an indication that any law was violated.

## WHAT CAN YOU GET FROM THE SETTLEMENT?

Apple has agreed to provide a cash refund to Class Members who paid for the type of repair covered by the settlement and who send in a valid claim form. The settlement covers repairs that were necessary because the inverter board of the Display failed, causing the gradient dimming of the top or bottom half of the screen of the Display and a power light to constantly blink on and off in a short-short-long pattern to signal a problem ("Covered Repair"). The settlement provides for different refund payments depending on whether your Covered Repair was performed by Apple or by an independent service provider ("Third-Party Provider"). Apple Authorized Service Providers are Third-Party Providers under the settlement. Refund amounts also vary depending on whether the Covered Repair was performed during the second or third year after you purchased the Display. The settlement only applies to a Covered Repair performed during the second or third year after purchase, and before August 31, 2007. Refund amounts are as follows:

REPAIR PROVIDER	YEAR OF REPAIR	REFUND AMOUNT
APPLE	YEAR 2	\$400
APPLE	YEAR 3	\$350
THIRD-PARTY PROVIDER	YEAR 2	THE ACTUAL AMOUNT YOU PAID (EXCLUDING TAX) UP TO \$150
THIRD-PARTY PROVIDER	YEAR 3	THE ACTUAL AMOUNT YOU PAID (EXCLUDING TAX) UP TO \$75

## HOW DO YOU GET A PAYMENT?

A detailed notice and claim form package contains everything you need. Just call 1-888-826-3082 or go to [www.Apple17inchLCDdisplay.com](http://www.Apple17inchLCDdisplay.com) to get one. If your Covered Repair was performed by a Third-Party Provider, you will be required to provide Proof of Repair.

## IMPORTANT DEADLINES

If your Covered Repair occurred on or before November 13, 2006, you must mail the claim form postmarked on or before February 12, 2007. If your Covered Repair occurred after November 13, 2006, you must mail the claim form postmarked on or before the *earlier* of 90 days after the date the Covered Repair occurred, or by August 31, 2007.

## WHAT ARE YOUR OPTIONS?

If you don't want a payment and you don't want to be legally bound by the settlement, you must postmark your request to exclude yourself by January 19, 2007, or you won't be able to sue, or continue to sue, Apple about the legal claims in this case. If you exclude yourself, you can't get a payment from this settlement. If you stay in the Class, you may object to the settlement. Objections must be received by January 19, 2007. The detailed notice describes how to exclude yourself or object. The Court will hold a hearing in this case (*Allen v. Apple Computer, Inc.*, Case No. BC 328000) on February 15, 2007, at 1:30 p.m. to consider whether to approve the settlement and attorneys' fees and expenses totaling no more than \$884,288.94. You may appear at the hearing, but you don't have to. To obtain a full notice and claim form, call toll-free 1-888-826-3082 or go to [www.Apple17inchLCDdisplay.com](http://www.Apple17inchLCDdisplay.com). For more details, go to [www.Apple17inchLCDdisplay.com](http://www.Apple17inchLCDdisplay.com) or write to Scott R. Shepherd, Shepherd, Finkelman, Miller & Shah, LLC, 35 East State Street, Media, PA 19063.

## STATEMENT OF OWNERSHIP, MANAGEMENT, AND CIRCULATION REQUIRED BY 39 U.S.C. 3685

1. Publication Title: *Macworld*
2. Publication Number: 0741-8647
3. Filing Date: September 28, 2006
4. Issue Frequency: Monthly
5. Number of Issues Published Annually: 12
6. Annual Subscription Price: \$34.97
7. Known Office of Publication: Mac Publishing, L.L.C., 501 Second Street, Fifth Floor, San Francisco, CA 94107  
(Contact Person: David Cobb, 415/978-3255)
8. Complete Mailing Address of the Headquarters of General Business Offices of the Publisher:  
Mac Publishing, L.L.C., 501 Second Street, Fifth Floor, San Francisco, CA 94107
9. The Full Names and Addresses of the Publisher, Editor, and Managing Editor:  
President/CEO: Jeff Edman, 501 Second Street, Sixth Floor, San Francisco, CA 94107;  
VP/Editorial Director: Jason Snell, 501 Second Street, Fifth Floor, San Francisco, CA 94107;  
Executive Editor: Dan Miller, 501 Second Street, Fifth Floor, San Francisco, CA 94107
10. The Owners: International Data Group, Inc., Patrick McGovern, 5 Speen Street, Framingham, MA 01701
11. There are no known bondholders, mortgagees, or other security holders holding 1 percent or more of total amount of bonds, mortgages, or other securities.
12. Tax Status: Has not changed during preceding 12 months.
13. Publication Title: *Macworld*
14. Average 11/05–10/06: Last Published Issue: 10/06
15. EXTENT AND NATURE OF CIRCULATION: Average No. Copies Each Issue during Preceding 12 Months 11/05–10/06: A. Total Number of Copies (Net Press Run): 400,997; B. Legitimate Paid and/or Requested Circulation:  
1. Individual Paid/Requested Mail Subscriptions Stated on PS Form 3541: 295,507; 2. Copies Requested by Employers for Distribution to Employees by Name or Position Stated on PS Form 3541: N/A; 3. Sales through Dealers and Carriers, Street Vendors, Counter Sales, and Other Paid or Requested Distribution Outside USPS: 35,920; 4. Requested Copies Distributed by Other Mail Classes Through the USPS: N/A; C. Total Paid and/or Requested Circulation: 331,427; D. Nonrequested Distribution (By Mail and Outside the Mail): 1. Nonrequested Copies Stated on PS Form 3541: 1,066; 2. Nonrequested Copies Distributed Through the USPS by Other Classes of Mail: N/A; 3. Nonrequested Copies Distributed Outside the Mail: 2,702; E. Total Nonrequested Distribution: 3,768; F. Total Distribution: 335,195; G. Copies Not Distributed: 1,232; H. Total: 336,427; I. Percent Paid and/or Requested Circulation (15C divided by 15G times 100): 98.88%.
15. EXTENT AND NATURE OF CIRCULATION: No. Copies of Single Issues Published Nearest to Filing Date October 2006: A. Total Number of Copies (Net Press Run): 396,859; B. Legitimate Paid and/or Requested Circulation:  
1. Individual Paid/Requested Mail Subscriptions Stated on PS Form 3541: 296,661; 2. Copies Requested by Employers for Distribution to Employees by Name or Position Stated on PS Form 3541: N/A; 3. Sales through Dealers and Carriers, Street Vendors, Counter Sales, and Other Paid or Requested Distribution Outside USPS: 33,908; 4. Requested Copies Distributed by Other Mail Classes Through the USPS: N/A; C. Total Paid and/or Requested Circulation: 330,569; D. Nonrequested Distribution (By Mail and Outside the Mail): 1. Nonrequested Copies Stated on PS Form 3541: 934; 2. Nonrequested Copies Distributed Through the USPS by Other Classes of Mail: N/A; 3. Nonrequested Copies Distributed Outside the Mail: 150; E. Total Nonrequested Distribution: 1,084; F. Total Distribution: 331,653; G. Copies Not Distributed: 911; H. Total: 332,564; I. Percent Paid and/or Requested Circulation (15C divided by 15G times 100): 99.67%.
16. This Statement of Ownership will be printed in the December 2006 issue of this publication.
17. I certify that the statements made by me above are correct and complete: Jeff Edman, President/CEO; September 26, 2006.

# The Missing Sync™

**Get the most from devices running:**

- ▶ Palm OS®
- ▶ Pocket PC
- ▶ Windows Mobile Smartphone
- ▶ Sidekick & hiptop



**mark/space**

**Say goodbye to outdated synchronization software**

[www.markspace.com](http://www.markspace.com)

Your solution for  
**limited space**

► RTA-1300A-ES18

► RTA-B001N-WG01

- Durable moisture-proof MDF panels
- Scratch resistant steel frame
- Non-marking locking double wheels
- Several colors to choose from

► You can purchase these and other styles at [www.staples.com](http://www.staples.com)

Keyword Search "Techni Mobile" or use item code

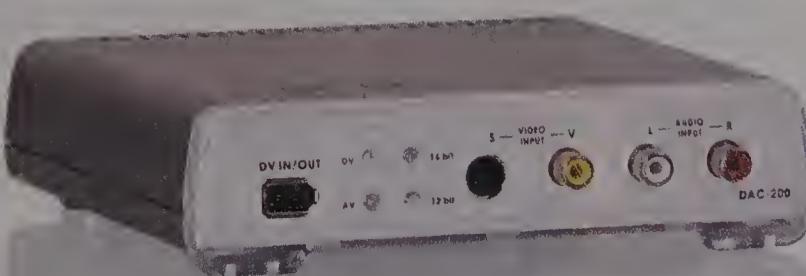
**STAPLES**

that was easy.

**TECHNI MOBILE**

Genuine Leather

► RTA-C500KTG



## DAC-200



### Media Format Converter

Now with locked audio and Smart DV.

Bi-Directional DV25/Analog Video – Y/C (S-Video), Composite Video, NTSC/PAL B selectable, and selectable audio sampling rate.

**MSRP \$ 199**

**datavideo®**

12300 E. Washington Blvd., Suite U  
Whittier, CA 90606

Tel: 888-809-3282 [www.datavideo.us](http://www.datavideo.us)

## GeekPod 100

**100+ Hour Rechargeable iPod Battery**



100+ hours of iPod audio run time and  
12+ hours of iPod video run time per charge

Charges PDAs, Cell Phones and PSP for 15+ Hrs

Powerful and reliable 6000mAh Lithium-ion core

Weighs only 6 ounces, smaller than a deck of cards and fits in your front shirt pocket

BatteryGeek.net also specializes in external long life batteries for Laptops, Portable DVD Players, MP4, MP3, Digital Cameras and more.

Visit Us: [www.batterygeek.net](http://www.batterygeek.net) Call Us: 1-866-466-6122 e-mail us: [sales@batterygeek.net](mailto:sales@batterygeek.net)

**ACME**  
MADE  
MANUFACTURING  
SAN FRANCISCO  
EST. 2002 USA

modern products  
for a modern  
lifestyle.

acmemade.com

# SPOIL HER

## This Christmas!

Send her a  
**Pajamagram®**

Choose from hundreds of styles.  
Each PajamaGram comes with a  
lavender sachet, gift card, and  
Do Not Disturb sign, delivered  
in a beautiful hat box. **ALL FREE!**

Christmas delivery guaranteed.  
**It's a gift you'll both love!**  
**1-800-GIVE-PJS**  
[www.PajamaGram.com](http://www.PajamaGram.com)



Shown: Ruby Velour Lounge Set

Hardpacks	iPodcases
Macbookcases	Softpacks

Select items available @ Apple stores  
and Apple online or axio-usa.com

**axio**  
AXIO BY HARODESIGN

For a limited time, please visit [axio-usa.com](http://axio-usa.com) and receive free  
FedEx ground shipping with promotional code AOMW06

**what's  
on yo  
BUM?**

bags  
[www.bbpbags.com](http://www.bbpbags.com) messenger + backpack + laptop protection

**SeafoodByNet.com**

Fresh from the sea to your doorstep!

Join our free  
Fresh Club Newsletter  
for daily fresh deals!

Visit  
[www.SeafoodByNet.com](http://www.SeafoodByNet.com)  
or call 815-337-4028



Your store for restaurant quality seafood and meats.

## Overnight Repairs & Upgrades MacBook • MacBook Pro • PowerBook • iBook

**Overnight Service Only \$79!**

Overnight Hard Drive Upgrades Up To 160GB From \$149

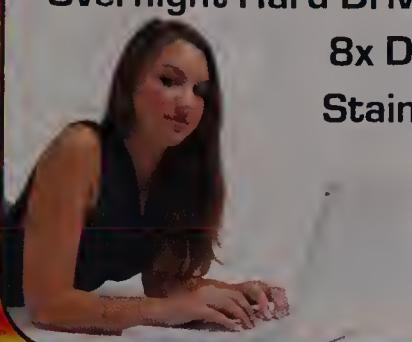
8x Dual-Layer SuperDrive Upgrades \$119

Stainless Steel Hinge Replacements \$249

Overnight LCD Repairs From \$349

Upgrade To A Glossy Screen For \$79

Overnight Door-To-Door  
Service Available



## Overnight iPod Repairs And Upgrades

**Overnight Service Only \$29!**

iPod Screen Repairs From \$49

Overnight Door-To-Door  
Service Available



**TechRestore.com**  
**1-888-64-RESTORE**  
Local/International: +1-925-689-9488

## PowerBook & iBook Liquidation!

iBooks  
From \$349



Powerbooks  
From \$649

Warranties  
Available  
Up To  
18  
Months!

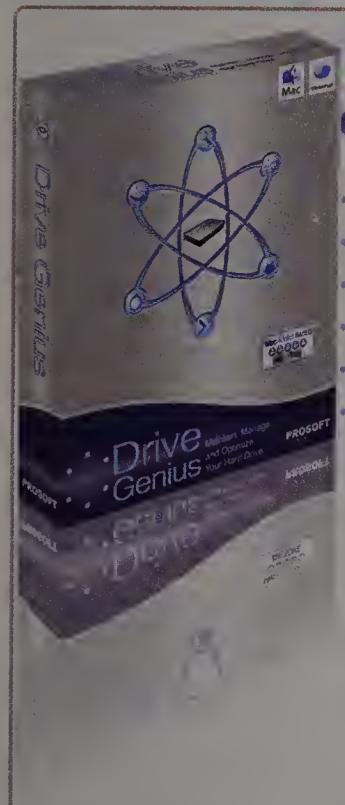


## Overnight PSP Repairs & Upgrades

**Overnight PSP Service \$29 Includes  
Overnight Pick-up & Delivery!**

PSP Battery Upgrades: Only \$29

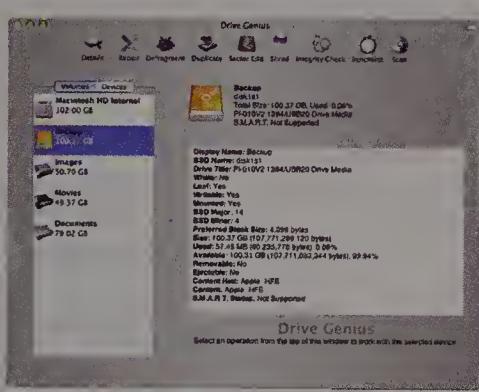
PSP Screen Repairs: Only \$79



## Drive Genius

Maintain, Manage, and  
Optimize Your Hard Drive

- Defrag & Optimize
- Repartition On-The-Fly
- Directory Repair & Rebuilding
- Clone
- Sector Editing
- Benchmarking & S.M.A.R.T. Diagnostics Testing



Now Universal



Where to buy:

Apple Store INGRAM MICRO Frys

COMPUSA

Check out Posit's other award-winning utilities:  
+ Data Rescue II  
+ Data Backup  
+ Picture Rescue

**PROSOFT**  
engineering, inc.  
303 Ray Street  
Pleasanton, CA 94566  
1-877-4-PROSOFT  
www.prosoftengineering.com

## 3D CAD for Woodwork

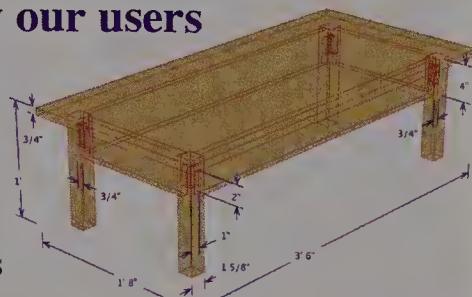


**Design Intuition 1.3**

"...easy and fun, as well as a great value." — Greg Miller

**"A joy to use," say our users**

- materials lists
- cutting diagrams
- accurate to Ångstroms
- Metric or Imperial (American)
- library of customizable designs



[www.gizmolab.com/save/mw/4](http://www.gizmolab.com/save/mw/4)

**A Cook's Books SOFTWARE**

**RECIPE MANAGEMENT**

**\$24.95**

**INTRODUCTORY OFFER**

**USE COUPON CODE: ItJustWorks!**

[www.3cam.com](http://www.3cam.com)

# DATA RECOVERY: 800-440-1904

*7 great reasons to choose DriveSavers:*



- Fast, advanced, proprietary techniques.
- Recommended by all computer and hard drive manufacturers.
- All operating systems; Mac, Windows, OS/2, Netware and UNIX.
- All storage devices including flash memory, MP3 players, SAN, RAID and NAS systems.
- Instantly retrieve recovered data with DataExpress™.
- Government Contracts and High Security Service.
- Featured in MacWorld, MacAddict, Forbes, CNN, BBC, New York Times, Popular Mechanics and more.



[www.drivesavers.com](http://www.drivesavers.com)

**"We Can Save It!"**

Visit DriveSavers at [www.drivesavers.com](http://www.drivesavers.com)

©2005 DRIVESAVERS, INC. 400 BEL MARIN KEYS BLVD., NOVATO, CA 94949 INTL: 415-382-2000

## Why Choose ESS Data Recovery?

- Superior, 24/7 Service
- Confidentiality Guaranteed
- Affordable, Up-front Pricing (no hidden charges)
- High Recovery Success
- Class-100 Clean Room Lab Standards
- Patent-Pending Recovery Technology
- Free Drive Included for Data Return

**ESS DATA RECOVERY LABS**  
**800.237.4200**  
[www.savemyfiles.com](http://www.savemyfiles.com)

# sharpdots.com

Your Online Resource For All Your Printing Needs

## MACWORLD SUBSCRIBER PROMOTION

### HOLIDAY POSTCARD PRICES!

2,500 5.5x8.5 \$188  
2,500 4x6 \$88



4x6 and 5.5x8.5 Postcard products  
UV Coating one-side  
14pt. C2S Gloss Stock

Promo expires December 31, 2006



RapiDots

Save time and money!  
Bypass digital proof process  
2-3 business day turnaround

1000	4/0	Business cards	\$35
1000	4/1	4x6 Postcards	\$64
1000	4/0	Bookmarks	\$70
1000	4/4	4x9 Rackcards	\$109
1000	4/4	8.5x11 Brochures	\$199

Go to [www.sharpdots.com](http://www.sharpdots.com) or call 877.742.7789

See website for complete details. All products printed from press ready digital artwork. Prices subject to change without notice.

# ZOO PRINTING

10395 Jefferson Blvd • Culver City, Calif. 90232

**NEW  
TRADE  
PRICES!**

## Photo Quality Printing

Staccato 20

Equivalent to 450 line screen

FLYERS	1,000	2,500	5,000	10,000
8.5" x 11" 100# Gloss Book	4/0	\$95	\$175	\$225
Two sided Aqueous Coating	4/4	\$195	\$250	\$295
BROCHURES				
11" x 17" 100# Gloss Book	4/0	\$190	\$350	\$450
Two sided Aqueous Coating	4/4	\$390	\$495	\$595
POSTCARDS AQ				
4.25" x 6" 14 pt. C2S	4/4	\$75	\$125	\$145
Front sided Aqueous Coating				\$275
5.5" x 8.5" 14 pt. C2S	4/4	\$99	\$150	\$199
Front sided Aqueous Coating				\$429
6" x 9" 14 pt. C2S	4/4	\$129	\$167	\$276
Front sided Aqueous Coating				\$541
BUSINESS CARDS	1,000	2,500	5,000	10,000
14pt CS2 Two sided UV Coating	4/0	\$25	\$39	\$55
Photo Quality 350 Line Screen	4/4	\$25	\$39	\$55

This website is for TRADE ONLY!

All Trade Customers Must Qualify to Receive These Prices!

All prices listed are for standard 5 day turnaround. 3 day prices and custom quotes are also available.

For more information visit our website.

We reserve the right to change prices without prior notification.

**WWW.ZOOPRINTINGTRADE.COM**  
**310.253.7751**



TOLL FREE PHONE:  
**1-877-782-2737**  
TOLL FREE FAX:  
**1-877-972-9117**  
5900 SAN FERNANDO RD # B  
GLENDALE, CA 91202

## SUPER TRADE PRINTER

### Printing Service offered for:

- Print Brokers
- Design Agencies
- Photographers
- Publishers
- Print Shops
- Designers

**1000 Business Cards**

**\$25**

4/0, 4/1 on  
14PT or 16PT

**5000 Business Cards**

**\$55**

4/0, 4/1 on  
14PT or 16PT

**1000 (4x6) Postcards**

**\$36**

4/0 on  
14PT or 16PT

**PRINT SMART**  
**PRINT WITH CONFIDENCE**

**NEXT  
BUSINESS DAY**

**2-4  
BUSINESS DAY**

**5-7  
BUSINESS DAY**

AVAILABLE

**SILVER**  
PMS 877

**200**  
LINE SCREEN  
ON EVERY JOB

**FREE UPGRADE**  
**14 pt - 16 pt**

**FULL  
BLEED**

**Stochastic  
(FM) SCREENING**

WE'LL MATCH ANYBODY'S  
ADVERTISED PRICE  
AND WILL  
**BEAT**  
THEIR  
**QUALITY**

Prices are subject to change without notice.



**tradeshow-stuff.com**

www.tradeshow-stuff.com  
800.969.9913

- premium mural graphic displays
- modular fabric panel & truss displays
- retractable banners
- custom table covers
- literature displays

*super*  
your source for everything tradeshow!

## Mac® Prices

PCPrices.net/Mac



- Find the lowest price!
- Get the best bundles!
- Prices updated daily

Formerly MacPrices.com

## AT LONG LAST!

An automated duplicator for your Mac.

Pico duplicator and MP3 ripper  
just **\$699**

Call 1-866-309-8627 or visit  
[www.discmakers.com/mw](http://www.discmakers.com/mw)



**DISC MAKERS™**

**5000 4x6 POSTCARDS**  
**\$119\***

FULL-COLOR DOUBLE-SIDED ON THICK 10 PT CARD STOCK

**edg miami:**  
877.PICK.EDG  
[877.742.5334]

\*2-3 business days. Shipping & graphics charges extra.  
Must mention Macworld Ad. Offer expires 10/31/06.

**BIG POSTERS**  
AT HUGE DISCOUNTS

2-3 DAY TURNAROUND OTHER SIZES AND MEDIA AVAILABLE LAMINATION & MOUNTING AVAILABLE

24" x 36" \$25 NO MIN. 17" x 22" ... \$12.50  
36" x 48" ... \$50  
48" x 72" ... \$125  
60" x 84" ... \$210  
GLOSS, SATIN, MATTE FINISH

Learn more: Call or visit: **BIGPOSTERS.COM**  
ASK FOR A SAMPLE PACK TO SEE AND FEEL THE QUALITY

Creative Jucca Printing & Graphics - 96 Gazebo Blvd - Farmingdale, NY 11735

**1-888-880-HUGE**



**Turn your computer clutter  
into cold cash!**

**WE BUY** Apple Macintosh and other brand name laptops, desktops and servers. We buy from businesses, institutions and individuals. One unit or a thousand, working or not, contact us for a quote. **AND...**

**WE SELL** fully refurbished Apple Macintosh computers, providing you with a new computer experience at a used computer price.

Call us today **(800) 960-1140**

**MicroReplay**

[www.microreplay.com](http://www.microreplay.com)

MicroReplay, Inc. 309 Walnut Street, Wellesley, MA 02481 - (781) 237-1140

**MEMORY MACS & MORE!**

**ALL MEMORY ALWAYS ON SALE!!!**

667 MHz DDR2 ECC FB-DIMMs for Mac Pro	4200/533 Pwrbk G4 Hi-Res 1gb	\$ 99
4gb Kit 2x2gb/2gb Kit 2x1gb	\$789/389	129
5300/667-All Intel Macs 1gb SoDIMM	\$99	PowerMac G4 PC133 512mb
		69

Call or Click for DRIVES, CPUs & ACCESSORIES



**800-873-3726**

11933 Wilshire Boulevard, West LA, CA 90025  
Phone: (310) 914-3200 Fax: (310) 966-4433  
University & School P.O.'s Welcome. Prices subject to change without notice.

Ad code 929-6

**MacSolutions.com**

**FAX US TODAY!**



I WANT TO ADVERTISE IN MACWORLD

**1.415.243.3544**

**MacWorld**

High-Performance Mac Memory

 Lifetime Warranty

Same Day Shipping

1-800-831-4569

Mon-Fri 9am-6pmCST

RAMjet

## RAM Upgrades

## iMac Intel



512mb - \$75  
1Gig - \$135  
2Gig - \$259

## MacBook



1Gig - \$139  
2Gig - \$259

## Mac Pro



1Gig - \$275  
2Gig - \$549  
4Gig - \$899

## MacBook Pro



512mb - \$75  
1Gig - \$135  
2Gig - \$259

## Mac mini Intel



1Gig - \$139  
2Gig - \$259

## G5 DDR2



1Gig - \$115  
2Gig - \$239  
4Gig - \$499

Secure Online Ordering at

[WWW.RAMJET.COM](http://WWW.RAMJET.COM)Speak to a  
Memory Expert

1-800-831-4569

Professional, Fast, Dependable



## Mac of All Trades

Your Solution for Buying and Selling Used Macs

[www.macfalltrades.com](http://www.macfalltrades.com)Creating a Web site  
was never this rewarding.

Sign up with FatCow Hosting before December 15, and you'll automatically be entered to win a Hawaiian vacation.

At less than \$10/month, you'll have plenty left over for tacky souvenirs.

[www.fatcow.com/hang10](http://www.fatcow.com/hang10)
No purchase necessary. Open to legal residents of 50 U.S. and D.C., 18 yrs+ eligible. Promotion starts 9/1/06 and ends 11/15/06. Void where prohibited. For full entry details including alternate no-purchase entry method visit [www.fatcow.com/hang10](http://www.fatcow.com/hang10).
 AmericasPrinter.com

The easiest way to print today.



*"We use.  
Americas  
Printer.com"*

Presentation Folders \$629  
starting at only

TriFold Brochures \$179  
starting at only

Sales Sheets \$99  
starting at only

Letterhead \$129  
starting at only

Postcards \$79  
starting at only

Business Cards \$39  
starting at only

Catalogs \$339  
starting at only

Doorhangers \$179  
starting at only

OUR NEW STANDARD.  
**THICKEST**  
IN THE INDUSTRY  
C2S  
**16pt**  
ON ALL HEAVY PAPER  
PRODUCTS

**MIX'N'MATCH  
GLOSS UV  
COATING**

FRONT	BACK
<input type="checkbox"/> NO UV	<input type="checkbox"/> NO UV
<input type="checkbox"/> FLOOD UV	<input type="checkbox"/> FLOOD UV
<input type="checkbox"/> SPOT UV	<input type="checkbox"/> SPOT UV

All full color offset Printing. All premium stock paper.

- **FREE Sample Kit!**
- 2,000+ products in our Price Guide
- Great Pricing with Fast Turnaround
- 15,000+ Customers Nationwide
- Full Commercial Heidelberg Printshop
- Print & Ship Anywhere in the USA

We Accept



Preferred Shipping Carriers

**800.552.1303** toll free

714.521.1100 CA | 714.521.5650 fax

6910 Aragon Circle, Buena Park, CA 90620

[www.AmericasPrinter.com](http://www.AmericasPrinter.com)

# Software Savings for Students, Teachers, and Schools!

**Get up to 85% off retail software prices on the brands you know and use...**



**Adobe®**  
Photoshop CS2  
**Save! 51%**  
Order Today!  
Edit Your Digital Images!



**Wacom®**  
Intuos3 6"x8"  
**Save! \$40**  
Only! \$289.<sup>95</sup>  
Create Digital Artwork!



**Quark®**  
QuarkXpress 7  
**Save! \$560**  
Only! \$189.<sup>95</sup>  
Make Amazing Documents!



**MakeMusic®**  
Finale 2007  
**Save! \$360**  
Only! \$239.<sup>95</sup>  
Create Your Own Music!

We carry thousands of industry-leading software and hardware products at huge discounts for students, teachers and schools. These special prices are ONLY for the academic community. And our prices are typically \$10-\$20 lower than most college bookstores! Call or visit us online today and start saving!

#### Adobe®

Acrobat Pro 8.....**Save 66%**  
Creative Suite 2.3.....**Save 67%**  
Flash Pro 8.....**Save 66%**  
Studio 8 .....**Save 71%**

#### Alias®

Maya 8 Complete Student...\$289  
Maya 8 Unlimited Student...\$379

#### Microsoft®

Office 2004 Student/Teacher ..\$149

#### FileMaker®

FileMaker Pro 8.5 .....\$149  
FileMaker Mobile 8.....\$39

#### M-Audio®

Ableton Live 5 .....\$249  
Pro Tools 7 M-Powered .....\$149

#### Sibelius®

Sibelius 4.....\$239  
Auralia 2.1.....\$89  
Instruments .....\$89

#### Corel®

Painter IX.5.....\$94  
CorelDRAW Graphics Ste.....\$94

#### Canopus®

ADVC-300 A/D Converter ...\$429  
ADVC-110 A/D Converter ...\$239

#### Wacom®

Graphire4 6"x8" .....\$169  
Cintiq 21 UX .....\$2,499

## Hey Parents!

"You are eligible to buy for your students at home or away at school."

**Give us a call toll free! 1-800-218-7455**

# ACADEMIC SUPERSTORE

## SOFTWARE DISCOUNTS

STUDENTS • EDUCATORS



**Macromedia Studio 8**  
\$299.98  
commercial SRP \$999



**Quark XPress 7**  
\$199.98  
commercial SRP \$749

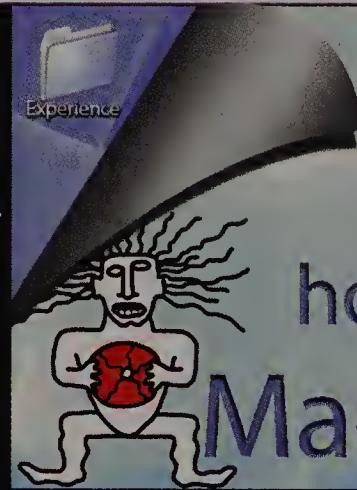


**Autodesk Maya® 8**  
with Combustion 4 & Cleaner XL  
\$399.98  
commercial SRP \$6999

[www.JourneyEd.com](http://www.JourneyEd.com)

journeyEd.com

800-227-3971  
1200 Marshall St., Shreveport, LA 71101



We buy,  
sell, and  
horse-trade

**Macintosh**

**ShreveSystems.com**

**MEGA MACS.COM**  
YOUR SOURCE FOR MEGAMAC DEALS SINCE 1995  
(813) 624-MEGA (6343)

**Kensington Clearance Sale**  
SAVE UP TO 85% ON SELECT KENNINGTON PRODUCTS  
Share, Sync, & Sound Off

• MAC 4.0 MEMBERSHIP/RENEWAL (MA3612Z/A) MSRP \$99	\$79
• MAC 4.0 FAMILY MEMBERSHIP/RENEWAL (MA3622Z/A) MSRP \$179	\$109
iBooks, iMacs, & PowerMacs	
IBOOK 500	\$249
IBOOK 600	\$299
ADD AN AIRPORT CARD FOR \$50	
IMAC G3	STARTING AT \$39
POWERMAC G3	STARTING AT \$39
POWERMAC G4	STARTING AT \$279
FREE WiFi FINDER KEYCHAIN W/ PURCHASE OF AIRPORT	
AIRPORT EXTREME \$39	
AIRPORT ORIGINAL \$99	
SAVE UP TO 75%	
ON BRIEFCASES, BACKPACKS, ROLLERS & BAGS BY TUMI, KENNSINGTON, BRENTHAVEN, CASE LOGIC, & KENSINGTON	

Create, Calculate, Edit, & Publish

QUICKEN 2006 RETAIL \$39

QUICKEN 2007 RETAIL \$59

MICROSOFT WORD 2004 \$139

OFFICE 2004 STUDENT/TEACHER STANDARD \$121

WIRELESS • BLACK, PART # 64337 \$229

WIRELESS • WHITE, PART # 64321 \$15

KENSINGTON OPTICAL LE \$14

WIRELESS, PART # 72219 \$17

KENSINGTON PILOT WIRELESS, PART # 72216 \$19

KENSINGTON MULTIMEDIA KEYBOARD MACINTOSH USB, PART # 64351 \$19

MACALLY USB LASER \$24

5 BUTTON MOUSE (EVEN WORKS ON GLASS) \$24

WIRELESS KEYBOARD \$24

MACALLY IKEYSLIM KEYBOARD \$24

MACALLY IKEY USB KEYBOARD \$29

MACALLY IKEY USB KEYBOARD \$29

KENSINGTON PILOTBOARD WIRELESS KEYBOARD & MOUSE, PART # 64382 \$39

PRICES BASED ON AVAILABILITY. SUBJECT TO CHANGE AND ROUNDED DOWN.

FIND THESE DEALS AT [MEGAMACS.COM/MACWORLD](http://MEGAMACS.COM/MACWORLD)

Make the most of  
your mouse rating in

# Macworld

Transform your great press  
into a valuable marketing tool.

Reprints, Eprints and NXTPrints  
of your Macworld mouse rating  
allow you to place this positive press  
directly into the hands of your clients,  
prospects, employees, investors  
and recruits.

**RMS**  
REPRINT  
MANAGEMENT  
SERVICES

For more information contact RMS:

800-290-5460 ext.100

[macworld@reprintbuyer.com](mailto:macworld@reprintbuyer.com)

[www.reprintbuyer.com](http://www.reprintbuyer.com)

# Call the Mac Experts! 1-800-613-2072

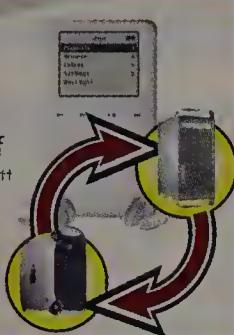
## We Think You're Really Special.

That's why powermax.com features a "Specials" section filled with the latest money-saving products, promotions and rebates. Check it often, the section gets frequently updated.



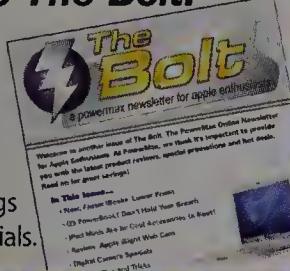
## Trade In Your Mac or iPod

Trade in your old Mac towards the purchase of a new one immediately.<sup>11</sup> Call us today or go online to find out how easy it is to recycle your old iPod or Mac!



## Get Informed. Save Money. Subscribe to The Bolt!

Subscribe to PowerMax's monthly newsletter and read about the latest product reviews, industry happenings and PowerMax specials.



## Visit the PowerMax OUTLET STORE!

Get a low-dough deal from the PowerMax Outlet Store! Find printers, hard drives, digital cameras, network cards and more!



# POWER MAX

Authorized Reseller

Local: (503) 624-1827

Fax: (503) 627-1635

Email: sales@powermax.com

We're PowerMax: Located in Oregon, the land of stunning natural beauty, friendly people and no sales tax

## Looking for MacBooks?

# WE GOT 'EM!



Trust PowerMax for the most configurations and best deals on the Apple MacBook! Call our Mac experts and ask about our huge selection of new, pre-owned and refurbished Apple laptops.

- MacBook 1.83GHz - 512MB RAM, 60GB HD, Combo Drive, 13.3-inch display (white) ... \$1099
- MacBook 2.0GHz - 512MB RAM, 60GB HD, SuperDrive, 13.3-inch display (white) ... \$1299
- MacBook 2.0GHz - 512MB RAM, 80GB HD, SuperDrive, 13.3-inch display (black) ... \$1499

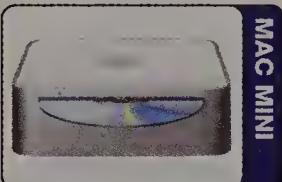
## Get a \$75 RAM Rebate and Free Shipping on any New Mac!\*



Prices start at  
**\$2124**



Prices start at  
**\$1229**



Prices start at  
**\$549**



Prices start at  
**\$1939**

## Get a Mac for \$69!

Nobody has a larger selection of pre-owned Macs than PowerMax. All our machines are bench tested and have a full 90-day warranty!



We carry a huge selection of professional & consumer printers, inks, paper & supplies!



PowerMac 7350/180 48MB RAM/4GB HD/CD-ROM .....	<b>\$69</b>
CRT iMac G3/350 64MB RAM/6GB HD/CD-ROM .....	<b>\$88</b>
G4 Tower G4/400MHz 64MB RAM/10GB HD/DVD ROM. ....	<b>\$299</b>
iBook G3/900MHz Snow 640/40GB/Combo 12" screen. ....	<b>\$699</b>
G4 Tower G4/867MHz Quicksilver 256/60GB/SuperDr. ....	<b>\$929</b>
G4 iMac G4/1.0GHz 256/200GB/SuperDr 17" screen .....	<b>\$979</b>
G5 Tower G5/1.8GHz 1024MB RAM/160GB HD/SuperDr. ....	<b>\$1659</b>

From flash drives to RAIDS, we have it all. Call us for your perfect storage solution!



Looking for a digital camera? We carry all the top brands: Canon, Nikon, Olympus & more!

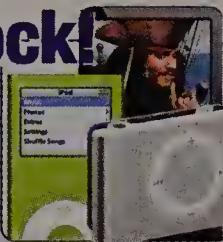


PowerMax has your next display. Choose from CRTs, LCDs & plasmas in all shapes & sizes.



## New iPods In Stock!

The entire iPod line has been revamped and PowerMax has them all in stock. Check out our great refurb and pre-owned iPods too!



New iPod shuffles - 1GB .....	<b>\$79<sup>00</sup></b>
New iPod nanos - 2GB, 4GB and 6GB ....	starting at <b>\$149<sup>00</sup></b>
New iPod videos - 30GB & 80GB .....	starting at <b>\$249<sup>00</sup></b>
Refurb 20GB w/ color display .....	<b>\$158<sup>00</sup></b>
Refurb 40GB w/ color display .....	<b>\$179<sup>00</sup></b>
Refurb 60GB w/ color display .....	<b>\$199<sup>00</sup></b>

Visit the PowerMax iPodiatrist and find the perfect accessory for your specific iPod model.

Prices subject to change without notice. Credit card orders strictly verified against fraudulent use. With use of credit card as payment, customer acknowledges that some products are subject to final sale. Many prices are limited to stock on hand. All brand names are registered trademarks of their respective holders. Not responsible for typographical errors. \*after mail-in rebate(s) some restrictions apply. Mac mini not valid for \$75 RAM rebate.

## Finance Your Next Mac!

Apply for a PowerMax Premium Finance Card!



[www.powermax.com](http://www.powermax.com)

# Hot Stuff

## Our Favorite New Stuff

FROM THE EDITORS OF MACWORLD



### Photo Icing

I've got something of a soft spot for cupcakes—they're perfectly sized and completely delicious, and you don't have to divide them into 13 even pieces to share with other people. Now you can also top them with a favorite photo. E-mail an image to Sugarcraft and the company will print it on edible icing. I ordered a sheet of six jumbo cupcake photos for \$9.50 (shipping not included). After baking some chocolate cupcakes and applying a generous heaping of white frosting, I used a spatula to gently remove one of the circles from the sheet and place it on top of the icing. Although the photo frosting has a slightly firmer texture, it tastes just like regular icing ([www.sugarcraft.com](http://www.sugarcraft.com)).—KELLY TURNER

### Versomatic

Elsewhere in this issue, you may have noticed Macworld's nine-page Gear Guide, a massive effort that fell to me to coordinate. So how did I stay on top of a project involving 20 writers, a multitude of submissions, and enough revisions to make the heads of lesser editors implode? I couldn't have done it without Versomatic, the new version-control extension from Acertant Technologies. The \$50 app—in beta at press time, but probably finished by the time you read this—catalogs and archives changes to your files in real time. You can read through older versions, recovering the one you want with just one click.

Versomatic – Version Manager				
	Version #	Size	Date Modified	Comments
23-12 cleanup gift guide tracking	0006	59 KB	Today, 11:23:37 AM	
23-12 gift guide draft	0005	56 KB	Today, 11:05:52 AM	
23-12 gift guide tracking	0004	56 KB	Today, 11:00:29 AM	
gear guide michaels	0003	56 KB	Today, 10:58:24 AM	
gear guide turner	0002	56 KB	Today, 10:57:09 AM	
macworld style sheet	0001	56 KB	Today, 10:56:36 AM	
	0000	56 KB	Today, 10:42:34 AM	

Thanks to Versomatic, when I inadvertently delete a clever turn of phrase, it's no longer lost to the ravages of time—and posterity is the richer for it ([www.acertant.com](http://www.acertant.com)).—PHILIP MICHAELS

### Fission

If you record lectures, meetings, or other content, and you want a way to break those audio files up into manageable chunks, Rogue Amoeba's Fission might be just what you need. It lets you trim and split MP3, AAC, Apple Lossless, and AIFF audio files without degrading quality. Fission also adds fade-in and fade-out effects, and lets you excise commercials ([www.rogueamoeba.com](http://www.rogueamoeba.com)).—PETER COHEN



### Virtual Physics Lab

Who says that science has to be dull? With Kinetic Books' \$30 Virtual Physics Labs, anyone can practice tasks such as juggling chain saws, driving race cars, and maneuvering helicopters to rescue a man atop a speeding train—all from in front of a Mac. To successfully complete the missions, users must apply physics principles. Schools will appreciate that the Mac- and Windows-compatible program is less expensive than traditional textbooks—and it offers an interesting new way to bring science learning alive ([www.kineticbooks.com](http://www.kineticbooks.com)).—SCHOLLE SAWYER McFARLAND

### WHAT'S HOT

Brought to you by John Moltz of the Crazy Apple Rumors Site ([www.crazyapplerumors.com](http://www.crazyapplerumors.com))

- 1 Apple's new iPod nano comes in silver, pink, black, green, and blue. No word on whether a towheaded boy has found the last of the five golden nanos that grant access to a special tour of Steve Jobs's Mac factory.
- 2 At a special event, Apple previews its long-awaited video-streaming set-top box. Attendees hoping to find free hardware under their chairs were disappointed to see a Granny Smith apple taped to the bottom instead.
- 3 Steve Wozniak's autobiography *iWoz* goes on sale. Steve Jobs immediately takes credit for writing the book.
- 4 A revised iPod shuffle the size of a postage stamp now clips to a belt or lapel. Apple's new marketing pitch: "Yeah, lanyards really are for dorks."

### UNIVERSAL TECHTOOL PROTÉGÉ

It's a laptop user's worst nightmare: Your computer dies while you're on the road, and there's no Apple Store or IT department to come to the rescue. But if you have Micromat's \$229 Protégé, there's hope. The Protégé is a tiny 1GB FireWire flash-memory drive that contains Micromat's TechTool Pro 4 maintenance, repair, and recovery utility; its Disk Studio partitioning utility; and Apple's Disk Utility, System Profiler, and Terminal apps—with room to spare for your other favorite tools. You can boot your misbehaving Mac from the Protégé to diagnose and repair many common problems. Even better, the new version of the Protégé contains Universal versions of all utilities and can boot both Intel and PowerPC Macs ([www.micromat.com](http://www.micromat.com)).—DAN FRAKES



**n** newer technology!

# Pick Your Partner.

## miniStack™ V2

"Creative cooling, sleek design, extra ports, OS X bootable and a fast hard drive make this a welcomed addition to any Mac..."

- MacMod



Expand your storage capacity and port flexibility while decreasing your desk/cord clutter. The Newer Technology **miniStack™ V2** is the perfect external drive and bus powered hub partner for your Mac!



**Macworld**  
Conference & Expo®  
January 8-12, 2007  
The Moscone Center  
San Francisco, CA

Visit NewerTech at Booth #S1338-23

80GB to 750GB **from \$99.95**

"Add Your Own Hard Drive" 0GB kits **from \$54.99**

The NewerTech **miniStack™ V2** - With up to 750GB of 3.5" drive space, there's plenty of storage space for music & video files, graphics & photos, and document backup while the 2 FireWire and 3 USB 2.0 ports enable connection of scanners, printers, memory card readers, digital cameras, and iPods – all at once!



Only 6.5" x 6.5" x 1.5"



MacAddict  
Rated GREAT  
123Macmini.com  
Accessory of the Year



Visit our website to check out our full line of external storage solutions and other accessories.

**owc**

To purchase NewerTech products visit distributor:  
**Other World Computing**

Serving the Computer Universe since 1988

Visit [www.MacSales.com/storage](http://www.MacSales.com/storage) 800.275.4576

\*80GB model covered by 2 Year NewerTech Full Solution Limited Warranty + 1 Year Additional (Total 3 Years) Hard Disk Manufacturer Warranty, 160GB to 750GB covered by 2 Year Full Solution Limited Warranty + 3 Additional Years (total 5 years) Manufacturer Warranty on the Hard Disk inside.

Mac mini is a trademark of Apple Computer Inc.

MW\_12\_06 Other World Computing, 1004 Courtaulds Dr., Woodstock, IL 60098

Prices, specifications, and availability are subject to change without notice. Items returned within 30 days may be subject to a restocking fee. No return will be accepted without Return Merchandise Authorization number.





## WITH HP YOU CAN PRINT YOUR VISION. EVERY TIME.

The ideas in your portfolio should stay true to the ideas in your head. That's why the new HP Designjet series of printers have a built-in spectrophotometer that analyzes color and calibrates it to match the media used. So quality stays consistent from print to print, media to media. And creating ICC profiles is quick and easy. What's more, the Designjet Z2100 boasts 8 Vivera pigmented inks that can match almost every color in the spectrum. These are not just new printers, they're a revolution in printing. Be part of it.

To request a print sample, or for additional information, please visit [www.hp.com/go/graphicdesign4](http://www.hp.com/go/graphicdesign4). To speak to an HP Representative, please call 1-800-888-5858.



HP PHOTOSMART PRO B9180\*  
13" x 19" 8 Vivera pigmented  
inks desktop printer



HP DESIGNJET Z2100\*  
24" - 44" pedestal printer  
with 8 Vivera pigmented inks



HP DESIGNJET Z3100\*  
24" - 44" pedestal printer  
with 12 Vivera pigmented inks